Servicemen Talk Back (2) . . . . . Pg. 17

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FTC Orders More Hearings In Dairy Case

Needs More Accurate Statistics for Decision

WASHINGTON, D. C. — The Federal Trade Commission has directed one of its hearing examiners to receive further evidence on whether nine major ice cream manufacturers have used exclusive dealing agreements to sell their frozen products.

They are Carnation Co., Los Angeles; The Borden Co., New York City; Beatrice Foods Co. (Delaware), Chicago; National Dairy Products Corp., New York City; Pet Milk Co., St. Louis; Fairmont Foods Co., Omaha, Neb.; Arden Farms Co., Los Angeles; Foremost Dairies, Inc., Jacksonville, Fla.; H. P. Hood & Sons, Inc., Boston.

In an earlier initial decision Examiner John Lewis had ordered dismissal of the FTC's 1955 complaints, which charged that the nine manufacturers and 55 of their subsidiairies have unlawfully lessened competition by using unfair competitive methods to make sales.

As grounds for the dismissal, the examiner had held that the evidence fails to establish that the manufacturers have induced or attempted to induce dealers, to any significant extent, to handle their frozen products exclusively by furnishing such items as refrigeration cabinets and other equipment, loans, servicing of equipment, and dis-

(Continued on Back Page, Col. 4)

Idea for Peace: an International Exchange Program for Servicemen

(Conscience of the Industry Editorial by George F. Taubeneck)

ONE PATH TO WORLD PEACE, universally approved, is the exchange of talented young people between nations for educational and cultural purposes. (People-to-people contacts always promote friendship and understanding).

The Russians achieve applause by sending us their incredibly proficient ballet dancers, musicians, hockey knockers, wrestlers, and chess players.

In return, we've awed them with pianist Van Cliburn, the towering Harlem Globe Trotters, a "Porgy and Bess" show, and our track stars who teach while exhibiting their prowess. And almost everyone, everywhere in the world,

(Continued on Page 10)

Recession? *Canvassing Results Shock Boss, Salesmen*

By C. Dale Mericle

ASHEVILLE, N. C. — Salesmen of White & Williams Co., Inc., here, who had been grousing about the recession and lack of business, got a rude shock when the boss himself went out and started ringing doorbells.

"I was shocked, too," admits John J. Williams, manager of the firm. "I had expected to be thrown out everywhere. Only two people were a little bit

(Continued on Page 19, Col. 3)

Cincinnati May Limit Noise Levels

Proposal Covers Home Cooling Units

CINCINNATI — A proposed city ordinance that would regulate location of residential air conditioners and set limits on noise levels will be discussed at a public hearing here Monday, April 17.

The hearing will be conducted by the law committee of the city council in the council chamber of the City Hall at 3 p.m. on that date.

Under the proposed ordinance, air-cooled condensers and/or compressors of more than 12,000 Btuh capacity or cooling towers in residential districts must be not less than 15 ft from all lot lines or adjoining lots, excepting where the adjoining building is completely air conditioned or "approved means of minimizing noise and delivery of air onto adjoining property are utilized."

A noise limit of 60 decibels at a distance of 15 ft or the property line, whichever distance is greater, would also be required of air conditioning equipment in residential districts.

Text of the proposed ordinance follows:

AN ORDINANCE NO. 1961

Regulating the locations of air conditioning equipment in residential districts by ordaining supplementary Sections 2505-1 and 2505-2 of the Building Code.

BE IT ORDAINED by the council of the city of Cincinnati, state of Ohio:

Section 1. That the Building

(Continued on Page 4, Col. 5)

Arizona Bid Depository Undergoing Final Liquidation after 3 Years

By Phil B. Redeker

PHOENIX, Ariz.—The Arizona Bonded Bid Opening Service, a bid depository that had been in operation nearly three years and which was regarded as one of the more successful bid depository operations in the country, is now undergoing a final liquidation.

Nearly 90% of the plumbing, heating, and air conditioning contractors in the Maricopa county area reportedly had participated in the plan at one time. However, through 1960 the bid depository system had deteriorated and before the end of the year the decision was reached to liquidate the setup.

Principal reasons advanced for the failure of the bid opening service, gleaned from the opinions of those participating in it, emphasized a failure to put together a strong contractor organization to hold the bid

(Continued on Page 20, Col. 1)

Gas Industry Maps Biggest Cooling Drive for 1961

NEW YORK CITY—The gas industry has mapped the biggest air conditioning sales campaign in its history for 1961. Its aim: To increase sales 70%.

Armed with new unit capacities and designs from 2 to 6.5 tons, the industry expects to increase its sales to at least 25,000 units compared with 15,000 sold in 1960.

To plan this stepped-up emphasis on air conditioning, 75 gas companies throughout the nation sent 260 representatives to a series of meetings in February in Birmingham, Dallas, Chicago, and Boston sponsored by the American Gas Association.

(Continued on Page 19, Col. 3)

Research Assn. To Permit Formation Of State Groups

By C. Dale Mericle

HIGH POINT, N. C. — Reorganization to permit the formation of state associations within its framework was voted at the third annual convention of the Heating & Air Conditioning Research & Development Association held here March 16 to 18.

Immediately following this vote, North Carolina members present went through the formality of setting up a state group. Formation of a similar state association in Florida seems likely in the near future.

By these changes in its structure the association hopes to

(Continued on Back Page, Col. 1)

G-E Cooling Div. Bows 4 Units

TYLER, Texas — General Electric Co.'s Central Air Conditioning Dept. recently released details on four new units in the 8 to 10-ton range, introduced to broaden its coverage of the commercial and industrial air conditioning and heat pump markets.

The models are designated as the TA96A and TA120A (8 and 10-ton straight cooling) and WTA96A and WTA120A (8 and 10-ton heat pumps).

"Many years of operation,"

(Continued on Page 4, Col. 1)

Inside Dope

By GEORGE F. TAUBENECK

Learn to live and laugh — thus delay your epitaph

Corporate Check-Ups

Have YOU ever sat down with pencil and paper and tried to express how you would like to have your company "thought of" by its customers, its suppliers, and the World of Business in general?

President of an important company in our industry did this recently on a long overseas trip, when he had plenty of time for uninterrupted reflection. He came up with the following:

"We want the world to believe these six things about our company:

"1. That we, ourselves, believe in our usefulness.

"2. That we try to think, plan, and carry on in terms of future goodwill, not merely present profits.

"3. That the commitment of anyone in our company — a salesman, a buyer, an executive — should be as dependable as a formal contract with signatures and seals.

"4. That our whole organization knows that pulling fast deals, or misleading anyone by evasion, lets the company down; while completely honest straightforwardness builds it up.

"5. That we desire customer confidence and are willing to lose orders if necessary to earn it.

"6. That we would rather buy from the right kind of people than from shysters who offer the lowest price."

It might be a wholesome exercise for the head of any business to develop a similar "aspiration rating" for his com-

(Continued on Page 7, Col. 1)

Loveley Takes Copeland Post

SIDNEY, Ohio — Joseph D. Loveley has been appointed coordinator of manufacturing and engineering for Copeland Refrigeration Corp., it was announced by Frank J. Gleason, president.

J. D. Loveley

For the past three years Loveley has been assistant chief engineer in Chrysler Corp.'s Central Engineering, in charge of vehicle air conditioning, heating, and ventilating. Previously he had been

(Continued on Page 4, Col. 5)

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Long Island Group Approves Certification Seal

SEAL OF CERTIFICATION
CLIMATE CONTROL COUNCIL
CERT. NO.
This system has been installed in accordance with
THE CODE OF STANDARDS
OF THE CLIMATE CONTROL COUNCIL - BY A MEMBER CONTRACTOR
CLIMATE CONTROL COUNCIL

A SEAL OF CERTIFICATION has been approved by Long Island's Climate Control Council as a mark that warm air heating and air conditioning systems have been installed in accordance with the council's Code of Standards by a member contractor. Printed white on council blue, the plastic seal is 4 by 6 in., and has adhesive backing for posting on heating and air conditioning systems. The council is a joint labor-management project established to maintain and guarantee high standards of materials and workmanship in the field of warm air heating and air conditioning. It is composed of some 30 of the largest contractors in Nassau and Suffolk Counties and the 700 members of Sheet Metal Workers Union, Local #55.

Aero-Test Equipment Acquires Gascool

DALLAS — Gene Walker, president of Aero-Test Equipment Co., Inc. here, has announced the expansion of his firm through the acquisition of the assets of the Gascool Div. of Vector Engineering Contractors.

The Gascool line of gas engine driven air conditioning equipment will now be manufactured by the Gascool Div. of Aero-Test.

E. F. Bilger, former manager of Gascool at Vector, will continue in the same capacity at Aero-Test.

"Aero-Test has assumed all unexpired warranties on Gascool equipment and has a complete stock of repair parts and service information available for all Gascool units now in service," the announcement said. "This includes all commercial, residential, and institutional installations.

"The production of Gascool units by the Gascool Div., 8401 Chancellor Row, Dallas, will include models of 3 to 15-ton sizes with self-contained air-cooled condensers, and 7½ to 30-ton models with remote air or water-cooled condensers.

"Chiller packages are available in all these capacities. In addition, 5 to 10-ton, roof-mounted combination heating and cooling units will be included. New models will be added to meet specific demands."

CRAC Exhibit at Multiple Dwelling Show

ADVANTAGES OF AIR CONDITIONING and refrigeration were explained recently to owners and managers of apartments, motels, hotels, and rest homes by the Certified Refrigeration & Air Conditioning Foundation (CRAC) of Southern California via a combination clinic and display booth at the Los Angeles Multiple Dwelling Show. Gene Ballard, business manager of Refrigeration Fitters, branch local #250, and Herb Schuch, vice president of RACCA Southern California (center) point out some of the information used by CRAC to a group of show goers.

Baltimore Aircoil Begins Addition

BALTIMORE — Baltimore Aircoil Co., Inc., has started construction on a 40,000-sq ft addition to its plant here, it has been announced by John Engalitcheff, Jr., president.

"It was only July, 1957," the announcement noted, "when the modern 67,000-sq ft plant was completed on the company's new 20-acre site near Baltimore. At that time there was ample room for increased output of B.A.C.'s air conditioning and refrigeration equipment, but a continued sharp annual rise in sales and production volume has made the addition necessary.

"Construction has already begun on the first half of the addition which is to be manufacturing space. Structural steel and the roof of the new manufacturing wing have been erected, and completion will take place this spring in time to meet the seasonal rush.

"The second 20,000-sq ft wing, to be completed during the summer, will be storage space to handle B.A.C.'s stocking program for evaporative condensers and cooling towers."

Gredys Is Perfection General Manager

CLEVELAND — Daniel N. Gredys has been named general manager of Perfection Div., Hupp Corp., according to Don H. Gearheart, Hupp president.

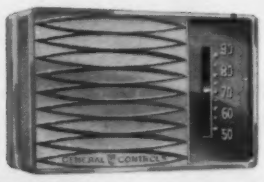
D. N. Gredys

Gredys, with Perfection since his graduation from Case Institute of Technology in 1935, was previously vice president of engineering. He succeeds A. J. DeFino, recently appointed a group vice president of Hupp.

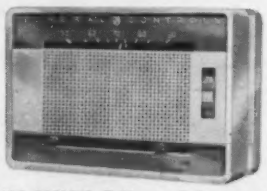
San Diego Home Show Features 'Weatherworld Of Air Conditioning'

SAN DIEGO, Calif. — In a progress report on its 1961 Spring Fair of Modern Home Ideas, opening April 28, the Bureau of Home Appliances of San Diego County said an entirely new approach this year is the exclusive "Weatherworld of Air Conditioning."

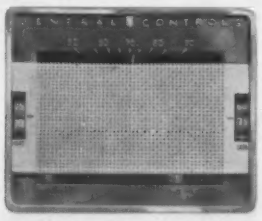
This is a separate building completely air conditioned and studded with interesting educational displays complementing the exhibits, it was noted. The "WeatherWord" will be telecast nightly from this building as an added attraction.



HEATING OR COOLING T-99 Room Thermostat with mercury switch dependability and "subtle touch" styling.



HEATING AND COOLING T-91 one dial summer-winter mercury switch air conditioning Room Thermostat with both heat and cold anticipation and "subtle touch" styling.



HEATING AND COOLING, AUTOMATIC SWITCHOVER T-344 Master Control Center with built-in heating-cooling interlock, heat and cold anticipation, mercury switches, and "subtle touch" styling.

IT'S THE SUBTLE TOUCH IN ROOM THERMOSTATS BY GENERAL CONTROLS

Your customers are seeing it in House Beautiful. They're asking their architects, builders and dealers about the most desired new line of room thermostats in years. Each model in the new line gives a subtle touch to home decor with clean, classical, horizontal styling. Each carries the name of General Controls, the name that means the very best in room thermostats. Add the sales power of this reputation and style to your heating and cooling installations. Insist on General Controls.

As advertised in House Beautiful.

ANOTHER TREND-SETTING ADVANCE FROM
GENERAL CONTROLS
Automatic Controls for Product or Process
Glendale, Calif. • Skokie, Ill. • Guelph, Ontario, Canada
Nine Plants • 44 Factory Branch Offices Serving the United States, Canada and Western Europe

SAY GENERAL CONTROLS
AND YOU'RE RIGHT...AUTOMATICALLY!

GEN 1-2

FREE

SPECIAL OFFER FROM UCON IKE:

THE SHIRT OFF HIS BACK

For buying Ucon® Refrigerants in 125-lb. and 145-lb. cylinders

With the big season coming up, now's the time to stock up on refrigerants . . . and buying 125-lb. and 145-lb. cylinders of Ucon Refrigerants is the smart, convenient way to do it. This larger size cylinder offers you economy and storage convenience . . . and to encourage you to prove it to *yourself*, Ucon Ike is pleased to make this stupendous offer:

For a limited time only—April 1st through 30th—yours FREE with the purchase of two 125-lb. or 145-lb. cylinders of Ucon Refrigerants: A Gen-u-wine Ucon Ike Sport Shirt

A handsome yellow checked, short sleeved "Van Heusen" sport shirt in comfortable cotton—the kind Ike wears on his vacation. Ideal for work, play, any day—from Northland to backyard hammock.

To get your shirt: Under the brass dust cap on the valve of every 145-lb. cylinder of Ucon Refrigerants (125-lb. cylinders of Ucon Refrigerant 22, too), you'll find a Ucon Ike Seal. Simply mail two of these seals, together with your name, and the name of your wholesaler on your company letterhead to: Ucon Ike, P.O. Box 1010, Grand Central Station, New York 17, N. Y. Applications must be postmarked no later than April 30th, and no earlier than April 1, 1961. And don't forget to include your shirt size! (Small, Medium, Large or Extra-Large.) While you're at it, any comments you'd care to include on the Ucon Refrigerants line will be most welcome. As soon as we hear from you, your Ucon Ike Sport Shirt will be rushed on its way.

*Remember—this offer is good from April 1st through April 30th only!

For Economy & Convenience plus The Shirt Off Ucon Ike's Back—FREE
Specify 145-lb. Cylinders of Ucon® Refrigerants

a UNION CARBIDE product — Ucon® refrigerants — exclusive sales agent ANSUL

Ucon Refrigerants are manufactured by
UNION CARBIDE CHEMICALS COMPANY — Division of Union Carbide Corporation
270 Park Avenue, New York 17, N. Y.

Exclusive Sales Agents to Air Conditioning and Refrigeration Wholesalers
ANSUL CHEMICAL COMPANY, Marinette, Wisconsin

Ucon is a registered trade mark of Union Carbide Corporation

G-E Introduces 8 and 10-Ton Units--

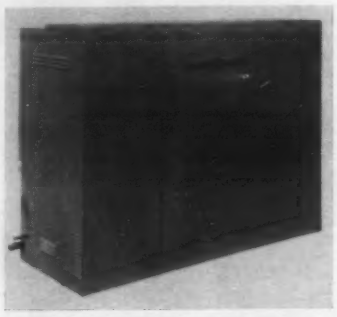
(Continued from Page 1, Col. 2)

G-E stressed, "have proven the vital components used in these new units. For example, the compressors alone contain 28 different standard parts on which millions of operating hours have been logged.

"As with all General Electric compressors, they were designed with the heat pump 'heft' that provides an extra margin of reliability on all applications, both cooling or heat pump.

"Better compressor - motor cooling has been combined with noise reduction on these new models with 'Acousti-Cool,' a General Electric exclusive."

G-E engineers explained that this development actually uses up a major portion of the sound energy within the compressor shell to improve cooling the motor, resulting in not only a cooler-running but more compact, quieter compressor.



GENERAL ELECTRIC'S new 8 and 10-ton condensing units are available as either straight cooling units or Weathertron Heat Pumps. Matching air handling units are also available.

The unusual cylinder spacing of G-E's 8 and 10-ton units allows them to start against any load they will run against, it is claimed.

"This feature," it was stated, "allows automatic re-setting high-pressure controls to be utilized, eliminating one more 'nuisance trip.' The only non-resetting control is the built-in circuit breaker.

"The new 8 and 10-ton units," the company continued, "feature an updraft design, with the fan being the only moving part exposed—and it is fully weatherized. The compressor, blower-motor, and controls are all protected from adverse weather conditions in a separate compartment.

"The protective coil grille is of vertical design to discourage ice build-up during defrost on 'Weathertron' heat pump models, and external sump heaters are provided to keep compressor oil refrigerant-free for a properly lubricated start in any weather. Being externally mounted, the sump heaters provide easy service.

"In addition, a heated, all-copper drainage system prevents ice build-up by circulating warm, liquid refrigerant through the drain pan to melt defrost slush.

"A right-angle turn built into the coil fan's air path makes the units less wind-sensitive when mounted completely exposed, as on a roof-top. Static pressure from this mixed-flow air moving system allows the addition of short inlet and discharge ducts when desired.

"All control components are readily accessible in the waist-level-high control compartment, located behind the full-width access door, and may be removed from the front of the control compartment."

. . . I can get just the fin spacing, tonnage and CFM I want."

Now, Halstead & Mitchell gives you a choice of 6, 7, 8 or 10 fins per inch . . . makes it much easier to match a central fan-coil unit to a particular job or to meet specifications.

And look what else H&M offers: a selection of three coil face areas for each model; direct expansion or chilled water cooling coils (1 to 8 rows); hot water, standard steam or non-freeze steam heating coils (1 or 2 rows); cooling capacities of 3 to 92 nominal tons with 880 to 47,750 CFM; Turbu-Flo coils arranged for right or left-hand connections; horizontal or vertical mounting for discharge in any direction . . . and every accessory item you need to simplify your installation.

Why don't you check H&M Central System Air Conditioners? Call your wholesaler or write for Bulletin AHU-100. Halstead & Mitchell Co., Dept. H41 Bessemer Bldg., Pittsburgh 22, Pa.

AH SERIES
AIR HANDLER

HM
Halstead & Mitchell

Central System Air Conditioners · Air-Cooled Condensers · Cooling Towers · Water-Cooled Condensers

Cincinnati Proposal-

(Continued from Page 1, Col. 5)

Code of the Code of Ordinances is hereby supplemented by ordaining Sections 2505-1 and 2505-2 to read as follows:

Sec. 2505-1. Air Conditioning Equipment, Location.

In any residence district as defined in Section 1303 of Chapter 3 of this Code, air-cooled condensing and/or compressor equipment of more than 12,000 Btu per hour (1 ton refrigeration) cooling capacity which is part of an air conditioning system or a water cooling tower shall be at a distance not less than 15 ft from all lot lines of adjoining lots in residence districts.

Exception: Where it is impractical to locate equipment as required in this section, a distance of less than 15 ft may be approved provided approved means of minimizing noise and delivery of air onto adjoining property are utilized. Where the entire building located on the adjoining property is provided with air conditioning, the minimum 15 ft requirement shall not apply.

Sec. 2505-2. Air Conditioning Equipment, Noise Abatement.

It shall be unlawful for any person, in the operation of any air conditioning equipment or part thereof, to make, continue or cause to be made excessive noise so as to cause annoyance or detriment to the public or any person. In residence districts, or other locations which adjoin residence districts, noise shall be considered excessive if the sound pressure level from the air conditioning unit exceeds 60 decibels as measured from the A scale of a General Radio Company No. 1551-A sound level meter or American Standards Association approved equivalent, when the meter is located at a point on the property line nearest the air conditioning unit or a distance of 15 feet from the air conditioning unit, whichever is greater.

Section 2. The words underscored in Section 1 hereof shall be italicized in the printed form and shall have the meaning prescribed in Chapter 2 of the Building Code.

Section 3. This ordinance shall take effect and be in force from and after the earliest period allowed by law.

Loveley Named--

(Continued from Page 1, Col. 5)

vice president in charge of engineering for Chrysler's Airtemp Div.

An engineering graduate of the University of Detroit, Loveley has spent practically all of his career in engineering and manufacturing in the air conditioning and refrigeration business.

He has served as chairman of technical committees in both the American Society of Heating, Refrigerating & Air-Conditioning Engineers, and the Society of Automotive Engineers.

N. C. Exam April 24

RALEIGH, N. C.—Examination for a state refrigeration contractor's license will be held by the North Carolina State Board of Refrigeration Examiners here on April 24, according to James A. Dean, executive secretary.

Applications for taking the exam must be on file by April 14.

VOL

92

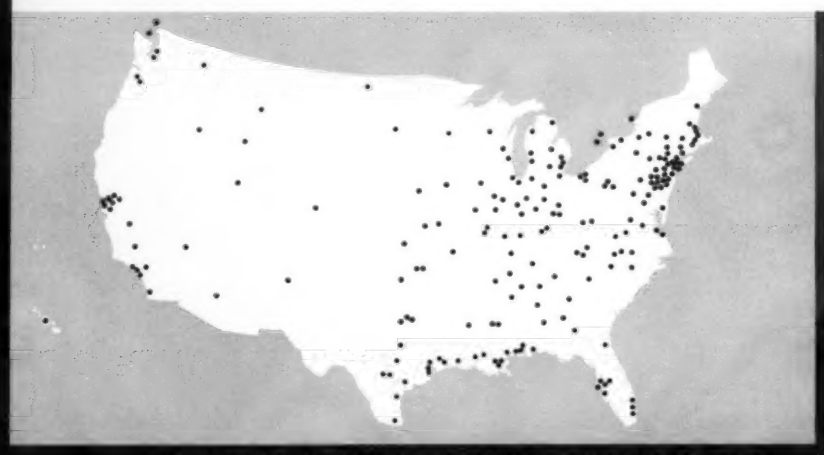
14

QUALITY... EXPECTED AND DELIVERED. Enjoying the best is not necessarily a luxury—certainly not in compressors and condensing units. For Bendix-Westinghouse units provide "luxury" quality at competitive prices—as any of our customers will attest. You can *expect* the best in performance and dependability from any model in our line—with full confidence it will *deliver* exactly that quality to you. To see how we back it up, turn the page.

Bendix-Westinghouse **MOTOR COMPRESSORS**

BENDIX-WESTINGHOUSE BACKS YOU UP WITH STRONG FIELD SUPPORT

Certainly, you'll agree. Next to product quality—few factors are more important to a manufacturer of refrigeration equipment than service support from his supplier. Here's the strong field support program Bendix-Westinghouse offers:



▲ **OVER 200 AUTHORIZED WHOLESALERS FROM COAST TO COAST:** This means—no matter where your customers are located, no matter where your installations are made—an authorized Bendix-Westinghouse wholesaler is close at hand.

▼ **COMPLETE ON-THE-SPOT REPLACEMENT INVENTORIES:** Our nation-wide wholesalers' network maintains complete inventories of motor compressors, condensing units, and replacement electrical components.

▲ **EXPERIENCED ENGINEERING AND APPLICATION ASSISTANCE:** Available from our regional managers located in major cities throughout the U. S. and Canada. These representatives use modern instruction devices and are well-qualified either to render on-the-job assistance or to conduct educational meetings.

Our field support is just one more reason why Bendix-Westinghouse is your best buy in motor compressors and condensing units. Get full details today.

Bendix-Westinghouse

EVANSVILLE, INDIANA

A Division of Bendix-Westinghouse Automotive Air Brake Company, Elyria, Ohio

Export Sales: Bendix International, 205 E. 42nd St., New York 17, N. Y.; Peter A. Karl, Inc., Union Station Bldg., Utica 2, N. Y.; Sabal-Kielmann, Inc., 15 William St., New York 5, N. Y.

Inside Dope

By GEORGE F. TAUBENECK

(Continued from Page 1)

pany—and then check up to see how well his organization is measuring up to this practical ideal.

Unconventional Speeches At Conventions

Here are a few remarks you seldom hear at a convention:

Chairman: "I hope you will forgive the low quality of our speakers this year. Our members asked us to spend most of our budget on entertainment."

Toastmaster: "I don't know anything about the speaker you are about to hear. The head office sent him out here and I hope he doesn't talk as long as the one we had last year. . . ."

Chief Speaker: "I am disappointed with this attendance. The only people I have met here are competing salesmen. . . ."

Third Speaker: "I am just going to show you a few slides today because I don't think you would understand anything else."

National President: "Getting out here in the grass roots and meeting you stupid characters helps me understand why our industry is in such sad straits."

New Association President: "I should say that my position means a lot of extra work. Actually, the executive secretary does everything. And the publicity means nothing to me."

It Happened In Erewhon

Public Relations Dept. of a prominent manufacturing organization in our industry consists of five newspapermen, two former editors of technical and trade publications, and a "personality kid" who inherited considerable wealth.

Normally the latter would have been just tolerated, if not resented, in a P. R. Dept. But this young man is immensely likeable, personally modest, and has useful connections.

O.K. The scene is set for this exchange of punts inside the department.

A. "I'm fed up with ratrace."

B. "Me, too. But how can we get out of it?"

C. "We could cash in our life insurance policies, sell our homes and cars, and buy a small-town newspaper somewhere."

D. "You mean pool our resources? I'm for that. Imagine! Our own newspaper! Let's buy one out in the West!"

E. (the wealthy lad): "Count me in for that western bit, fellas. How about the *Denver Post?*"

Sober Look at Africa

Shipping tycoon James A. Farrell declares: "We should shift the direction of our capital investment from areas where it already has served its purpose to other parts of the world where it would do the most good."

The Africa market, he adds, is "a vast area almost untapped by us, but about to be developed by others. . . ."

In 1959, the United States provided only three percent of the total imports bought by Nigeria, four percent by Ghana, five percent by Tanganyika and 16 percent purchased by the Union of South Africa, he examples.

While urging American businessmen to reassess the importance of Africa as a market for our goods, he reminds us that this raw continent is the supplier of 18 basic and strategic raw materials in which the U.S.A. is deficient.

"Let us not be deceived. What Moscow really wants is not freedom now for Africa's turbulent peoples—but their gold, industrial diamonds, uranium, colbalt, and copper.

"In spite of what appears to be unresolved chaos, there is in Africa today more tranquility than belligerence, more goodwill than ill will, and more opportunity than obstacle."

Farrell criticizes political reporters who present distorted pictures of turmoil in Africa.

"The generalizations of these politicians and their journalistic satellites have done a great injustice to those nations which quietly and earnestly are working to establish an efficient, functioning national economy through the daily business of earning a living."

What Africa needs most now are stability and time he asserts.

"Political stability, free from outside pressures by East or West—and multiracial understanding—are absolutely essential. In my opinion, these requisites are nearer to accomplishment than the alarmists would have us believe."

Stories of the Week

Sales manager called a meeting of his staff.

"Men," he announced, "I am dictating a new rule. From now on, no more vodka martinis at lunch. Gin martinis, fine. But no vodka."

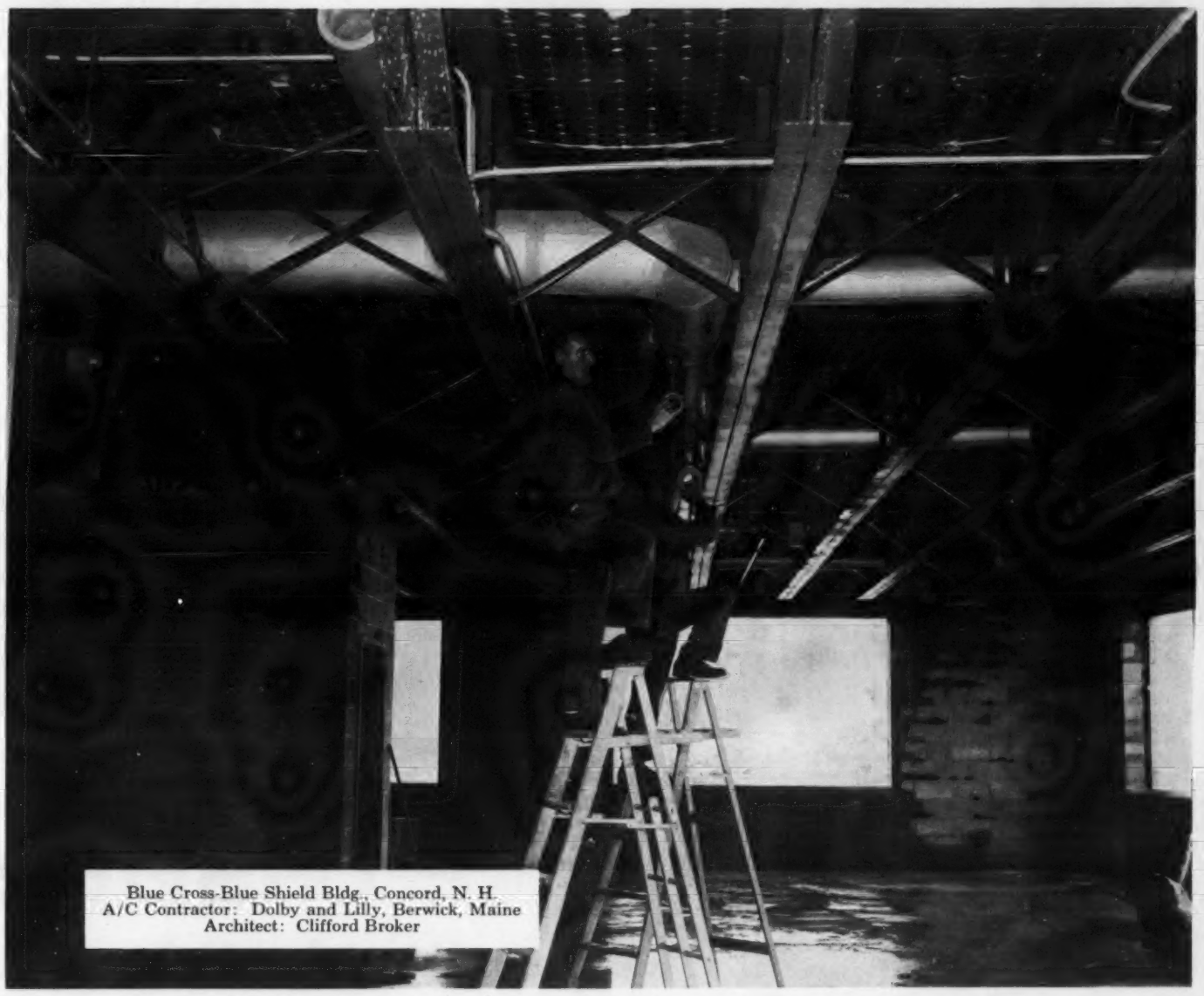
"What's this?" brashed a salesman. "A slap at the Russians?"

"No. Fact is, vodka doesn't smell on your breath. When you talk to customers, I want them to think you're drunk, not stupid."

There are many more men than women in mental hospitals.

Three times as many men commit suicide than women.

Could this be because women aren't married to women?



Blue Cross-Blue Shield Bldg., Concord, N. H.
A/C Contractor: Dolby and Lilly, Berwick, Maine
Architect: Clifford Broker

"G-B Duct Cut Our Installation Time Almost 50%"

New prefab glass fiber air duct saves money in Blue Cross-Blue Shield Building

"Right from the start we saved money," reports Mr. Kenneth L. Lilly of Dolby and Lilly, air conditioning contractors. "We would have had to fabricate conventional ducts and then insulate them for air conditioning—but using prefab, lightweight G-B Duct saved us almost 50% in time. And, Blue Shield got a noiseless duct system at no extra cost!"

You too, can install commercial heating and air conditioning duct systems almost twice as fast when you use G-B Duct, the round, prefabricated glass fiber duct. Manufactured in ready-to-use 6′ sections, G-B Duct is quickly and easily installed with only a knife, standard sheet metal fittings and vapor barrier tape. All assembly work is done right on the job site. The result is a completely noise-proof, insulated duct system and usually at less cost than an insulated metal duct system.

Molded entirely of glass fiber insulation, G-B Duct provides efficient transmission of heated and cooled air, plus "built-in" thermal and acoustical protection. Its uniformly-thick walls contain millions of tiny cells that reduce heat loss or gain to a minimum, as well as soak up all equipment noises before they're ever heard.

For a superior quality duct system, at rock-bottom costs, try G-B Duct. It is equally suited for residential as well as commercial and institutional applications. For complete information, write today.

GUSTIN-BACON Manufacturing Company
218 W. 10th St., Kansas City, Mo.

GUSTIN gb BACON

Thermal and acoustical glass fiber insulations . . . Molded glass fiber pipe insulation . . . Couplings and fittings for plain and grooved end pipe

Plastic Pipe for Water Lines Cuts Air Conditioning Labor, Material Costs

WORKMEN FIND a knife can cut Republic Steel's plastic pipe to proper lengths. Pipe can also be swerved around obstacles.

A MECHANIC connects Republic Steel's plastic pipe to a home air conditioner unit in Texas.

Used on Residential Cooling In Texas

CLEVELAND — A 90% reduction in labor and a 50% cut in material costs on installing condensing water and chilled water lines for large home air conditioning units has been realized by a major Texas gas company through the use of plastic pipe, according to Republic Steel Corp. here.

The installer, Lone Star Gas Co., Greenville, Texas, uses between 20 and 200 ft of Republic Steel's FT polyethylene pipe at each job site, depending on requirements.

"Being flexible, the pipe is swerved around obstacles along the route between the conditioning units and the houses," it was pointed out. "In contrast, conventional pipe would have to be cut, routed around obstructions with the aid of tees, couplings, and elbows, thus consuming more time, material, and effort."

Most of the all-gas-operated units call for the use of 1¼-in. plastic pipe. Workmen, reports the gas company, find a knife can be used to cut the plastic to proper length—no special cutting tools are needed.

To connect the ends of the pipe lengths, the FE is clamped over a plastic coupling that is inserted into the pipe ends. Generally, the line is installed deep enough to keep it out of the reach of spades and other garden implements. In most cases, a two man crew can install a unit and its water lines to the house in less than half a day, it was stated. Where insulation is required the plastic line is slipped into a large diameter flexible pipe insulation material, the company said.

"Republic's pipe is a polyethylene formulation and thus is not affected by moisture, fertilizers or acids that corrode other pipe materials," the manufacturer said. "Moreover, there is no chance of corrosion by electrolysis. The pipe is shipped from the mill in 100-ft coils and has a 75 pounds per square inch pressure rating for the application."

N. Y. Tech Offers 2-Yr. Cooling Curriculum

ALFRED, N. Y.—The New York State University Technical institute here offers a concentrated two-year curriculum in air conditioning, heating, and refrigeration.

The two-year course leads to an Associate Applied Science, AAS, degree.

According to Julian M. Laub, professor of the air conditioning technology dept., "Our teaching is at the two-year college level, and we are accredited by the Engineering Council for Professional Development and other educational organizations."

Epley Succeeds Routh In Airtemp Post

DAYTON — Lee Epley has been appointed director of advertising and sales promotion for Chrysler Corp.'s Airtemp Div.

L. Epley

Epley has been with the division for 20 years, most recently as advertising manager. He will succeed Richard R. Routh, Jr., according to T. W. Kirby, vice president-marketing. Routh has joined the New York office of Grant Advertising, Inc. as vice president and will continue to supervise the Chrysler Airtemp account.

In the busy months ahead...

INSIST ON gen SUPER-DRY

"GENETRON" PRODUCTION CENTER

"Genetron" Super-Dry Refrigerants are produced in this giant fluorochemical center in Baton Rouge, La. . . . in Danville, Illinois . . . and will also soon be produced on the East Coast at a new plant now under construction at Elizabeth, N.J.

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TRICHLOROMONOFLUOROMETHANE

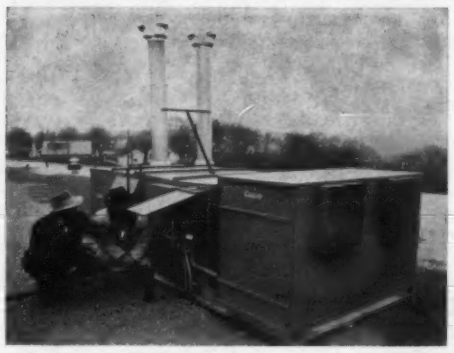
genetron 12 CCl_2F_2 WHITE LABEL
DICHLORODIFLUOROMETHANE

genetron 22 $CHClF_2$ GREEN LABEL
MONOCHLORODIFLUOROMETHANE

genetron 113 $C_2Cl_3F_3$ PURPLE LABEL
TRICHLOROTRIFLUOROETHANE

genetron 114 $C_2Cl_2F_4$ BLUE LABEL
DICHLOROTETRAFLUOROETHANE

Self-Serve Department Store Saves Extra $4,000 with Rooftop Heating-Cooling Units



TAKING A CLOSE LOOK at one of the heating-cooling units on the roof of The Giant Store are Stanley Bernstein (left), Carrier dealer and president of Aerco Engineering Co., Peoria, Ill. and Meyer Jacobs, owner of the store.

Releases 400 Sq Ft Of Sales Space

PEORIA, Ill.—The use of a new kind of rooftop heating and cooling unit reportedly has doubled the savings on the cost of air conditioning a 40,000-sq ft self-service department store here.

Stanley Bernstein, the dealer who installed the equipment, originally estimated a savings of $4,000 in engineering and installation costs by heating and cooling the new Giant Store with packaged rooftop units instead of a central system.

INSIDE THE STORE, air is discharged down and out the sides of ceiling diffusers to a radius of 24 ft, and return air is drawn up through the center of the same grille.

He first planned to use four 15-ton air-cooled conditioners and one 5-ton unit for cooling, and six 250,000 Btu duct heaters for heating. Installation of this equipment would have required strengthening the roof joists to hold the load.

Lightens Roof Load

But Bernstein saved the store owner, Meyer Jacobs, an additional $4,000 when he designed a system using a new Carrier rooftop unit which provides both heating and cooling, and has its weight dispersed over a wider area, it was stated.

Installation of seven of these units, each with a capacity of 10 tons of cooling and 250,000 Btu of heating, eliminated the need to "beef up" the joists and purchase separate heating equipment.

Ductwork was required for only two units. One of these delivers conditioned air to the office, rest rooms, storage areas, and a section of the sales space. The other directs air to the entrances where it blankets the doors to temper drafts.

Transmits Cool Air Through Ceiling Grilles

No ducts were needed for the remaining five units which send conditioned air directly into the sales area through ceiling grilles. Air is discharged down and out the sides of each diffuser to a radius of 24 ft, and return air is drawn up through the center of the same grille.

All service work can be done on the roof, without interrupting sales activities. Mechanical failure of any one unit will not appreciably affect conditions in the store.

The use of rooftop equipment also freed 400 sq ft of sales space, originally set aside for central system equipment.

Total Cost $28,000

Total cost of the installation was $28,000. This included wiring from the main panel to the seven units and gas piping—a matter of more than $2,000.

The Giant Store of Peoria is one in a chain of self-service department stores that operate like supermarkets.

NEWS readers are invited to write to the editor giving their opinions on any subject of interest to the industry.

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See your wholesaler before the rush starts . . . make sure you're covered for all your refrigerant needs in the hurry months ahead. Be sure, also, to see the new "Genetron" Kit for field testing hermetic burnouts and the new pressurized "Genetron" 11 solvent cylinders for cleaning out mildly contaminated jobs; your "Genetron" wholesaler can tell you about this new "Genetron" service while you are there.

NEW! "GENETRON" 11 PRESSURIZED SOLVENT CYLINDER

Special pressurized cylinders of "Genetron" 11 solvent provide an ideal means for cleaning out mildly contaminated systems after burnout.

Allied Chemical

GENERAL CHEMICAL DIVISION

40 Rector Street, New York 6, N.Y.

Editorial

Idea for Peace: an International Exchange Program for Servicemen In Our Industry

(Continued from page 1)

has come to love touring Satchmo Armstrong and his Dixieland Band.

Meantime, both the newly opulent Russians and the scrawny Chinese Communists have been recruiting and importing students for their "colleges" from the wastelands of the Earth.

Whatever the latter study, and however they are treated, many of these Africans and Asiatics return to their junglelands brainwashed and red-tinged — and so do dolloping Latin American discontents who are included in these free-for-all, catch-as-catch can, Communist "education" binges.

Somewhat similarly, but better-off, many of the brightest young people of the free Western World spend a high school or collegiate year or two in the U.S.A. *via* "exchange programs."

They return, presumably, to Sing Our Song.

But, what are we doing for potential overseas technicians? (The lads who, because of ruthless scholastic examinations, can't go on to higher education and who are destined to become clerks or mechanics.)

The worldwide Revolution in Consumer Expectations might afford them a chance to rise above their grandfathers' and father's economic "classes" — IF these ambitious young men could be trained in the U.S.A. to become servicing and installing mechanics for our industry.

Following letter is a mighty interesting, and mightily challenging, example.

* * *

Cambridge, England

Editor:

I shall be coming to the United States next June for four months during my long summer vacation. I am quite willing to do any form of work whatever, but feel that my experience gained in refrigeration servicing and engine repair should help to get work in that line.

I have served an apprenticeship with Lightfoot Refrigeration of London, and have been a service engineer for York. Surely I could be of use to any American service firm which is shorthanded in the summer months.

I thank you in advance for your help.

C. S. MENCE

P.S.: I feel sure that the following may have no place in a letter of this sort, but my father says you will appreciate it.

He overheard two men talking at lunch the other day. Apparently one was complaining that however quietly he came home at night, his wife invariably woke up and gave him hell.

His companion told him that this keeping quiet was out of date. When he came home late at night he made as much noise as he liked, stormed into the bedroom and said:

"Tonight's the night!" Whereupon his wife always turned over and pretended to be asleep.

* * *

Tonight may be THE ripe time for importing bright young mechanics (potential refrigeration and air conditioning servicemen) from Europe, South America, Africa, and Australia—*and training them here.*

Let's take them into our homes and offices, pay their expenses while they learn how to install and service American (refrigeration, heating, and air conditioning) products—and then send them home full of goodwill for our conception of democratic freedom and Free Enterprise.

These "commercial exchange students," you can bet, will become valued customers for American products later—and forever will be productive salesmen in their respective countries for Our Way of Life.

Surely this industry would profit handsomely if we instituted a personal "student mechanic exchange program" of this nature.

The NEWS can supply names and addresses of young men abroad who need, and desire, this cooperation.

Who among you prescient readers will be the first to volunteer at least one international "scholarship" of this practical peace-promoting nature?

Your rewards: Cost savings during peak service and installation seasons, wondrously happy social interplay, and a real sense of personal contribution toward the promotion of World Peace.

1 HERE'S A YOUNG MAN WHO'S GOING PLACES - PENROD BALLPOINT (CRACK SALESMAN FOR BILGEWATER BEVERAGE) WITH HIS HAPPY FAMILY.
2 YEARS AGO, THE BALLPOINTS WENT IN HOCK FOR A HOME IN SOUTH HORSECHESTER. "AND THEY SIMPLY A-DORE IT!
3 THE KIDS HAVE REALLY TAKEN ROOT. THEY'RE POSITIVELY NUTZ ABOUT THEIR SCHOOL AND THEIR PALS."
4 MOM AND POP ALSO. THEY JOINED THE COUNTRY CLUB LAST WEEK - COST: ONE GRAND.
5 THERE'S EVEN TALK IN HORSECHESTER OF "BALLPOINT FOR MAYOR," THEY SAY HE'S GOING PLACES...
6 "AND HE CERTAINLY IS. LISTEN TO THE GOOD NEWS BIGDOME GAVE HIM JUST THIS MORNING..."
BALLPOINT, M'BOY - CONGRATULATIONS! HAD MY EYE ON YOU, SON! WE'RE OPENING A NEW BRANCH IN MALARIA JUNCTION AND YOU ARE TAKING CHARGE! NO, NO! DON'T THANK ME! WHEN CAN YOU BE READY TO LEAVE?
3-16
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They'll Do It Every Time

by Jimmy Hatlo

OFF THE CHEST

These letters are typical of those the NEWS frequently receives from around the world. Although not all of the writers request an opportunity for training in the United States, all the letters do reflect the desperate need for basic help with fundamentals and mechanics of refrigeration and air conditioning.

from INDIA . . . . . and HONG KONG

172 Civil Lines
Unnao, U.P., India

Editor:

I am keenly interested in acquiring specialized training in refrigeration and air conditioning. In regards my qualifications, I may state that after my intermediate exams with science and mathematics in 1955, I joined a technical college and secured a double diploma. After 4 years of training in all the main subjects of electrical and mechanical engineering, I am now supervisor in refrigeration of 3 French ammonia compressors with a capacity of 1 million kcal/hr.

In the present state of my country's industrialization, we need specialists in all industries.

I belong to a middle class family; I am only capable to pay my passage by sea. I should feel highly thankful, sir, if you could fix me up somewhere for training so that earning and learning both problems are solved.

OM. N. MEHROTRA

. . . and AFRICA . . .

Caixa Postal, 535
Lobito, Angola
Portugese West Africa

Editor:

I take this opportunity to inform you that I have been receiving with regularity "The NEWS" as well as the "Directory" which I appreciate very much.

Being interested in taking up a correspondence course in refrigeration in the Spanish language, I should appreciate it if you would recommend a school of your confidence.

JAIME GOMES FERREIRA

42, Shaukiwan Rd. 2d fl.
Hong Kong

Editor:

I am sorry that I can't find any way to obtain the money order of U.S. dollar, since I am living in Hong Kong. So I enclose 2 U.S. dollar for payment of: Air conditioning specification guide (one copy)—The Heat Pump Handbook, by F.J. Versagi (one copy)

I am desiring to find a book dealed with maintenance, construction, repair, circuit control & etc. of new modern large compressor (15-hp to 100-hp, even more) installed at a large air conditioning planting machine room, because sometime we make so much mistakes absurbly and waste much time due to lack of this kind machine knowledge.

LO HO KWONG

—LATIN AMERICA

Comercio 89—Box 271
Ponce, Puerto Rico

Editor:

We have a number of 1-hp and ¾-hp - - - window units installed.

We have had several clients complaining of excessive noise on the units. Upon inspection, we have found the hermetic compressor with no oil. Further inspection showed the oil in the coils. On one instance we added more oil, sealed the unit and set it operating. It worked properly for about two months and again it developed the same trouble.

Please give us an idea of what is causing this trouble and how we can remedy the situation.

FERNANDO L. COLLAZO

AIR CONDITIONING HEATING & REFRIGERATION NEWS
F. M. COCKRELL, Founder

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From the Files of the News

25 years ago . . .

Copeland Refrigeration Corp. has announced a five-year warranty plan on all 1936 household condensing units, optional at a cost of $5. Standard one-year warranty will continue to cover all purchasers who do not wish to buy under the five-year plan.

Crosley Radio Corp. rescinded its optional five-year warranty and made it mandatory on all Shelvador refrigerators.

Summer lay-offs in the making of Kentucky's bourbon whiskey have been averted by Buffalo Spring's Distillery Co. in Stamping Ground, Ky., with the installation of a Frick cooling system. The modern cooling system permits temperature regulation in the vats where the back-set and mash are mixed, and controls the temperature throughout the fermentation period. . . . There will be 71 manufacturers' exhibits of automatic oil burning and air conditioning equipment at the 12th National Oil Burner Show to be held this April.

In urging utility men to tell the public that "air conditioning is here" and that they should promote it for their own benefit, L. R. Boulware, vice president and general manager of Carrier Corp., had this to say before the third annual Edison Electric Institute Sales Conference in Chicago: "the time is **now** when the home market should be approached and sold; . . **health** is a great sales ally because air conditioning is the great comforter of the hay fever victim in summer and one of the greatest known preventatives of the common cold in winter; big air conditioning installation jobs are limited until we have a sufficient number of men trained in air conditioning sales-engineering **and** a sufficiently well-organized body of information and history of experiences with air conditioning available to all."

Boulware's list of things which he thinks the utilities can do to accelerate the air conditioning market included: "have your offices and salesrooms air conditioned; have air conditioning promotional exhibits on your sales floors; run air conditioning newspaper advertising; enclose circulars with bills; run direct mail campaigns and use testimonials from satisfied users of air conditioning."

Carrier equipment has been used in the first drugstore installation in New Orleans. . . . Comfort cooling is the "opening wedge" to selling year-round air conditioning to the public, according to C. E. Michel, vice president, Union Electric Light & Power Co., St. Louis. . . . The value of orders booked for air conditioning systems and equipment in January was $950,958, according to data tabulated by the U. S. Bureau of Census.

10 years ago . . .

As of April 1, 1951 producers and fabricators of aluminum must set aside 15% more of the metal for defense orders than previously, the National Production Authority has ruled, under pressure of events in Korea. Industry leaders and government officials will discuss the availability of essential materials such as copper, refrigerants, replacement parts and operating supplies when they meet at the Eastern Refrigeration and Air Conditional Exhibits in Buffalo.

Restrictions on the use of water for refrigeration and air conditioning equipment have been relaxed somewhat under new rules adopted by New York City. New regulations require that water be circulated only when the capacity of refrigeration and air conditioning units exceeds 6 tons (as compared to 3 tons formerly). . . . World sales of electric refrigerators in 1950 hit 6,225,000.

Nippon Air Conditioners, Inc., Chrysler Airtemp distributorship in Tokyo, has recently completed an unusual air conditioning installation for an Osaka firm producing high grade pharmaceutical products. The drug firm now has a bacteria and dust-free room in which to package their products. A battery of germicidal lamps and an electric air filtration system "treat" one of the processing rooms. All employes wear clean bacteria-free uniforms, masks, and footwear. Visitors can view the processing and packaging only through special glassed openings.

Houston, Texas, continues to be one of the most completely air conditioned cities in the nation. During 1950 19,125.5 tons of air conditioning equipment were added to the 118,748 operating in Houston, making a total of 137,872.5 tons. Residential installations totaled 7,441 tons in 1950 (four times more than in 1949). Department buildings, food stores, and offices also accounted for large increases.

NEWS readers are invited to write to the editor giving their opinions on any subject of interest to the industry.

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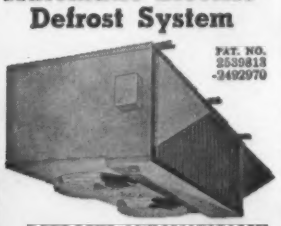

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Los Angeles 38, Calif.

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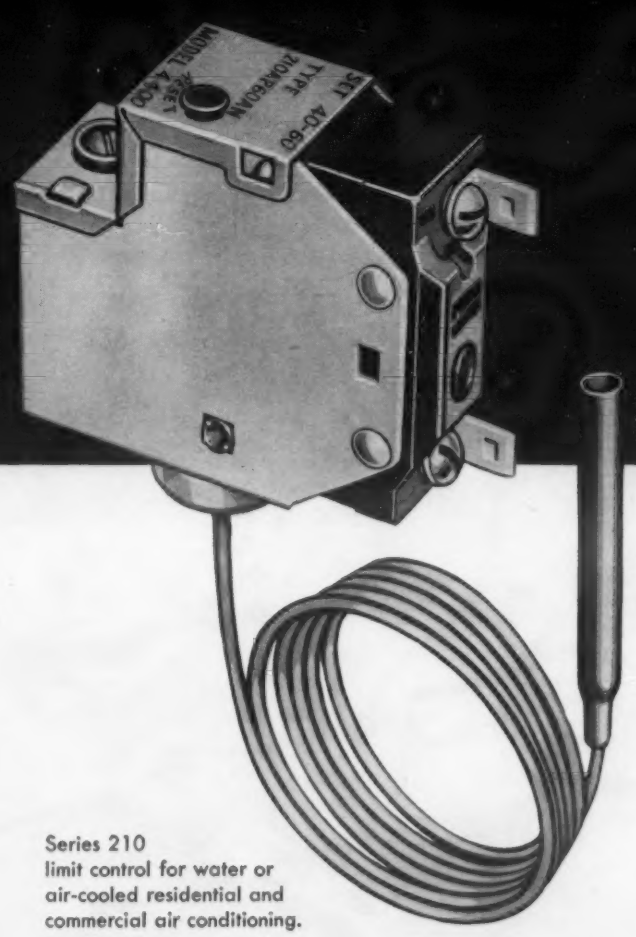
your wholesaler has limit controls for replacement on all packaged air conditioning



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Now . . . Penn's Series 210 limit control, widely-used by manufacturers of packaged residential and commercial air conditioning, *is available for field replacement.* And, with its adjustable pressure range, it will fit the specifications of any air conditioner manufacturer.

No more waiting . . . no more disgruntled customers . . . simply go to your wholesaler and get immediately the correct replacement for the high or low limit control. Your wholesaler has a handy Penn cross-reference chart which makes proper selection fast and easy.

Remember, to give your customers prompt service . . . go to your wholesaler and ask for the Penn Series 210 limit control.

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AUTOMATIC CONTROLS FOR HEATING, REFRIGERATION, AIR CONDITIONING, APPLIANCES, PUMPS, AIR COMPRESSORS, ENGINES

Michigan Contractors Meeting Largely Devoted to 'Running Their Businesses'

By George M. Hanning

DETROIT—Heating and air conditioning, as such, were never discussed at the golden anniversary convention of the Michigan Heating & Air Conditioning Association.

The contractors present and the program speakers concentrated their attention on how to run their business, collect money, and protect themselves against financial losses.

A laboriously worked out change in the structure of the organization aimed at strengthening the group and broadening its membership also occupied the delegates during their recent two-day session at the Henrose hotel here.

Asked to pick out major industry problems to discuss at workshop sessions, the contractors selected estimating as a prime problem, followed by job cost accounting, credit management, and overhead.

Estimating

All agreed that estimates based on known costs and a physical check on all job requirements rather than "guesstimates" pulled out of the air should be the basis of setting selling prices.

Most claimed to estimate, though a few noted that it was hard for a small operator, with a myriad of things to attend to himself, to spend much time on estimating.

One larger contractor, however, advised them that time spent with the prospect to make a proper estimate is not wasted, largely because competitors do not do it.

The customer, he pointed out, puts more faith in the man who takes time to learn his requirements than one who merely looks around and jots a figure on the back of an envelope. People buy what they know best, he said.

Credit Management

During the discussion on credit management, John DeHaan, director from Kalamazoo, reported on the success of a recently-formed suppliers and services division of the Kalamazoo retail credit bureau.

The group collects monthly data on credit status of builder contractors and disseminates it among members.

"At the present time," DeHaan reported, "41% of the builder contractor accounts are 90 days or over past due. This is a pretty poor situation."

Urging other contractors to protect themselves by collecting and using credit information on their customers, DeHaan said, "Don't be afraid of losing business because you check their credit or refuse to sell to slow payers. You would just lose money on them anyway.

"The minute we see them slipping, we start filing mechanics' liens."

Al Keats, president of the association, supported this idea and asserted that a local court has upheld the subcontractors' right to protect himself by agreeing with other subcontractors not to do work for a builder who owes another subcontractor money.

While the contractors disagreed mildly on what constituted overhead, all agreed that it ran between 18 and 22% of gross sales. They noted that less and less of it is remaining in the controllable category.

"What can you do," one contractor wailed, "when your auditor advises you to raise your prices 10 to 15% or increase your volume by X number of dollars, and you know that you can't do either one?"

"Just keep on losing money," was the only response he got.

Robert LaChance of the National Warm Air Heating & Air Conditioning Association, spoke to the contractors on business administration, which, he said, means "do it right or go broke."

He emphasized that the successful contractor must be willing to pay for his profits by putting something of himself out to earn it. That means study.

How SBA Can Help

Kenneth Henry from the local office of the Small Business Administration explained how SBA can help small businessmen with assistance in getting government contracts, furnishing technical aid and counsel, issuing certificates of competence (that they are competent to handle a government contract if awarded one) and through loans.

He warned that it is not easy to get an SBA loan and the process takes about two months. He said the applicant must be turned down by conventional lending institutions, must put his own personal assets into the business, and must be reasonably able to repay the loan.

SBA loans, he said are not made for the purpose of bailing anyone out by paying off creditors, financing real estate speculation, or making loans for a change of ownership or bringing a new person into the business.

SBA loans money for working capital, conversions, expansion, construction, or new machinery, he said.

Donald P. Schuur explained the workings of the Michigan mechanics lien law, the protection it offers, how to use it, and what is required of the subcontractor in order to take advantage of its provisions.

He particularly warned contractors about signing waivers of lien and condemned the "vicious practice" of some general contractors who require subcontractors to sign a pad of blank waivers of lien. "Don't do it," he advised.

Stewart Kerr, lawyer, commented that everybody is in interstate commerce who does something to violate a Federal law. In determining who is or is not in interstate commerce, geographical lines are meaningless, he said.

C. Clyde Mill of the Standard Accident Insurance Co. described the coverage of product liability insurance, emphasizing the generous awards juries are inclined to give injured parties when suing businessmen.

He noted that product liability insurance covers the vender during the time the insurance is in force. It covers accidents that occur during that period, no matter when the product was installed. Contrariwise, it does not cover products installed during the life of the insurance, after the insurance has expired.

He also advised the contrac-

tors that their liability for the products they install continues on, even after they go out of business.

During the association's business meeting, present officers were retained in office until next September when the new by-laws will take effect.

Reorganization of the association, now largely completed, expands active membership to include suppliers and anyone else connected with the heating and cooling industry. Suppliers had formerly associated themselves with a suppliers auxiliary.

Members now must belong to a local organization affiliated with the state association. Each local association will supply at least two directors to the state association. Locals will be entitled to one additional director for each 40 members beyond the first 40. Thus a local with 41 members will be entitled to three directors.

Dissolves 'Mylar' Insulations

Service Managers Club Warns Against Use of Alcohol In Some Sealed Units

CHICAGO—Thirty-two members of the RSES Manufacturers Service Managers Club, attended an informal luncheon meeting of the club, held here during the 15th International Heating & Air Conditioning Exposition.

During a round table discussion, it was pointed out that the new "Mylar" insulations used on motors in some hermetic compressors apparently are dissolved by alcohol.

"A serious service program is created when alcohol is used in these refrigeration systems," said Hal Kelso of Tecumseh. Suggestions were offered as to warning service people of the importance of keeping alcohol and other such products out of such systems.

One suggestion was to stencil or add a warning label on the top of the hermetic compressor before shipment.

International Secretary H. T. McDermott pledged to do all possible through RSES publications to warn members of RSES to refrain from using alcohol in hermetics.

SALE OF PARTS FROM JUNKED COMPRESSORS

Those present were warned of a situation where a certain company is buying junked compressors, disassembling them to salvage parts, and selling the parts throughout the country as repair parts for hermetic compressors.

Representatives of the compressor manufacturers described the proper procedure for exchanging "in" and "out" of warranty compressors through their wholesalers.

The use of epoxy resins in the industry was discussed, with several members describing how their company makes use of this relatively new material. Those who have had experience with "epoxies" discussed the pro's and con's of its use.

It was pointed out that the term "Epoxy Resin" applies to a large class of plastic bonding adhesive materials with many characteristics. "Some appear to hold up better in contact with R-12 than with R-22," it was stated.

The late Educational Director John H. Spence indicated that a speaker will talk on the use of "Epoxy Resins" in the air conditioning and refrigeration industry, at the RSES International Annual Convention this fall in Toronto.

The discussion was moderated by John Downen, service manager of Bendix-Westinghouse. The April 19 meeting of the club will be held in Indianapolis at Bryant Mfg. Co.

World Trade Corner

CONTROLS CO. OF AMERICA, Schiller Park, Ill., announced that a new company, Deutsche Controls GmbH in Duisburg, Germany, has been organized as a German sales and service headquarters for CCA products. The firm will handle the promotion and distribution of heating, air conditioning, appliance, electrical and electronic controls produced by Controls Co. plants in Europe. A branch office is being located in Munich.

* * *

THE FOXBORO CO., Foxboro, Mass., to "coordinate its worldwide sales activities in light of a growing volume of instrument sales," has added a marketing division which will serve its associated companies in England, Canada, Holland, and Japan, as well as its U. S. market. C. Schwarzler was named vice president of marketing.

* * *

WHIRLPOOL CORP., in its 1960 annual report to stockholders, said export shipments of appliances increased despite the loss of the Cuban appliance market and restrictions in Venezuela. Assets involved in Cuba were liquidated without loss.

Pointing out that the company has acquired a minority interest in Corporacion Nacional Distribuidora, S. A. in Mexico, the report also noted: "Our total investment, exclusive of advances, in partially owned foreign companies is $964,000." It was also reported that Whirlpool's technical assistance agreement with Malleys, Ltd., Australia, has been broadened to cover its full appliance line.

It is anticipated, the report added, that net earnings of unconsolidated foreign subsidiaries will continue to be reinvested in foreign operations.

CHEVY 4-WHEEL DRIVE—NOW ON 12 MODELS

SEEN IN ALL THE WORST PLACES

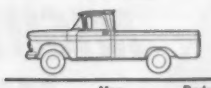
They keep showing up in places most trucks can't get to because it takes an awful lot to stop these sure-footed Chevy four-wheel-drive models! Where the job calls for the mobility of a mountain goat teamed with the stamina of a mule, you'll find no finer way to get your work done. And for 1961 the Chevrolet 4-wheel drive lineup is a full dozen models long. You can pick from a *wide* selection—one that's sure to include the best answer to your toughest traction-plus requirement!

■ Put any one of these 4-wheel drive Chevies on any job—then watch it dig in and *go!* Come what may in the way of mud, snow, sand, loose gravel, creek bottoms, swampland or freshly plowed ground, you can rest assured that the extra bite of up to double traction—plus stump-jumping road clearance—will get you through every time.

And you'll like the way a Chevy 4x4 rolls down the highway in smooth 2-wheel drive, ready to give you 4-wheel traction at the flick of a lever, the moment you need it. You'll appreciate the no-clutch shifting ease of the transfer case (whether moving or standing still) and the extra versatility that's yours with a choice of 4-wheel direct or underdrive.

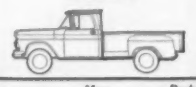
If you prefer the extra snap of spirited V8 power, it's yours at nominal extra cost in any model. Also available at extra cost are heavy-duty 3-speed and 4-speed transmissions and a wide choice of traction tires. You can tailor your Chevy 4 x 4 to fit your needs exactly. Get the full details and turn your traction problems over to Chevy—the traction champ of them all!... Chevrolet Division of General Motors, Detroit 2, Michigan.

FLEETSIDE



Model	Max. Load	Body Length
K1434	1400 lb.	6½'
K1534	1300 lb.	8'
K2534	2950 lb.	8'

STEPSIDE



Model	Max. Load	Body Length
K1404	1450 lb.	6½'
K1504	1350 lb.	8'
K2504	3050 lb.	8'

CHASSIS-CAB

Model	Max. Load	Wheel-base
K1403	1900 lb.	115"
K1503	1850 lb.	127"
K2503	3500 lb.	127"

PANEL CARRYALL

Model	Max. Load	Body Type
K1405	1300 lb.	7½' Panel
K1406	1000 lb.	Carryall (panel type rear doors)
K1416	1000 lb.	Carryall (tailgate and liftgate)

SEND COUPON TODAY

PLEASE SEND COMPLETE INFORMATION ON THE CHEVROLET 4-WHEEL DRIVE LINEUP TO:

Name_____

Company_____ No. of trucks owned_____

Address_____

City_____ Zone_____ State_____

1

Fill out and mail coupon to: Commercial and Truck Dept. Chevrolet Motor Division General Motors Corporation Detroit 2, Michigan

1961 CHEVROLET STURDI-BILT TRUCKS CHEVROLET

REVIEW of VACUUM for SERVICE ENGINEERS by Saunders & Williams

NEW!

A comprehensive STORY OF VACUUM written specially for SERVICE ENGINEERS!

Contents: Atmosphere and its pressure • Meaning of vacuum; how created, used and measured • High vacuum pumps and their care • Vacuum line size and their effect • Procedure for dehydrating, degassing and leak detection • High vacuum gages • Precision charging.

SEE YOUR WHOLESALER OR WRITE:

AIRSERCO MFG. COMPANY
435 Melwood Ave. • Pgh. 13, Pa.

Gentlemen: Enclosed is my check or money order for ☐ copies of the "Review of Vacuum" at $4.00 per copy postpaid in the U.S.A. Shipment is to be made immediately.

Name_____

Address_____

City_____ State_____

Air Blender 'Eliminates Stratification'

● The English air blender (patent pending), a new device said to equalize the air temperature at all levels in heated spaces without creating drafts, has been announced by English Engineering Co., Dept. AH&RN, 707 Glendale Dr., Abilene, Texas.

"It eliminates cold floors, stifling heat at upper levels, and air stratification in heated areas during cold weather," the company claims. "While the unit is operating, a lower average temperature is desirable, resulting in fuel savings."

The blender "contains an axial fan that causes the air to be drawn in at the base," it was explained. "This cold air is discharged radially (360°) immediately under the ceiling. In less than 10 minutes, in an average installation, an even temperature exists at all levels."

"The telescoping unit is first retracted, set on the floor in a vertical position where desired, and the top section raised against the ceiling and locked securely with a simple twist," the company said.

"No housewife would experience difficulty in installing the blender or in moving it to various locations as the conditions warrant. The electrical cord is plugged into a nearby convenience outlet."

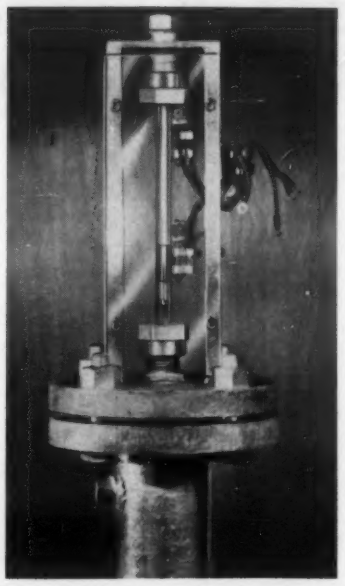
Bus Conditioners Are for Latest Models

● A line of new bus air conditioning units, "designed to complement the lines of even the very latest models of city buses," has been announced by Thermo King Corp., Dept. AH&RN, 314 W. 90th St., Minneapolis.

Thermo King began manufacture of bus air conditioners four years ago. Its first units intended primarily for buses already in the field. More than 300 of these units are in use in St. Louis, about 150 in Dallas, and others are operating in more than 20 cities.

The new units are said to "form an integral part of the bus and give the installation a 'factory-made' appearance." A one-piece package, the Thermo King unit has its own engine and is a complete, independently-operated mechanical system. Cool air enters the bus through louvers in the ceiling and the air is filtered as it circulates through the unit.

Liquid Level Indicating Control Available

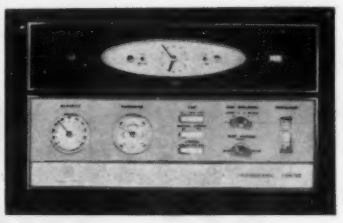


● Called "Gage-O-Matic," a new liquid level indicating control which provides accurate, visual read-out of liquid level variations in refrigerant vessels is now commercially available at low cost, according to H. H. McKinnies Co., Dept. AH&RN, 3131 W. Mill Rd., Milwaukee.

In addition, Gage-O-Matic is manufactured to order, with single or multiple control switches to provide automatic operation of pumps, valves, indicator lights, alarm bells, compressor shut-down, and signal circuits to ADT, Merchant's Police, or other protective organizations, the company said.

According to H. H. McKinnies, president of the company and originator of the device, several thousand Gage-O-Matic's have been extensively field tested over the past few years and records show they provided dependable service.

"The control," it was pointed out, "has only five major parts: the float chamber, guard section, control switch or switches, combination float ball, rod and magnet-indicator, and an indicator glass. There are no outside moving parts. Control switches are located away from the cold influence of the refrigerant, but are so constructed that they will continue to function even if covered by frost or ice."



Weather Panel Gives Indoor, Outdoor Data

● The "Thermoramic Center," which offers indoor weather data and control as well as information on outdoor atmospheric conditions, has been unveiled by General Controls Co., Dept. AH&RN, 801 Allen Ave., Glendale, Calif.

"Measuring 8 by 14 in., the new weather central panel serves as a sentinel for external barometric and humidity conditions plus automatic sequencing of day and night indoor temperatures," the company pointed out. "Another feature is a monitor system which indicates clogged air conditioning filters, an extinguished gas pilot light, an improperly functioning compressor, or the need to reset an oil burner."

On the panel face is a clock-timer that sequences the automatic day-night temperature settings. There are also knobs and switches for control of the air conditioning and heating systems, barometer and humidity dials, and the indicators for malfunctioning system components.

She's sweating out a scale problem

It figures—twenty women in her shop—the hottest day this summer—and the air conditioning quit. No wonder she's perspiring . . . and imagine what her customers are saying.

Scale in the cooling water system caused the shutdown. While outdoor temperatures were moderate, the system operated fairly well. But an extra ten degrees was too much.

You can keep *your* customers from getting into this kind of a pickle. First make sure the system is clean—by using Calgon® Scale Remover. Safe and easy to use, this famous Calgon product has built-in inhibitors and wetting agents. A color indicator tells you when the solution is right and when the job is done.

Once the system is clean—*keep* it clean with Micromet® Plates. A plastic coated glass mesh feeding bag makes it easy to introduce continuous treatment to any system—and a single charge lasts the whole season in most systems.

If the problem is water . . .
CALGON HAS THE ANSWER

More than 35 years of experience with water problems of all kinds . . . research facilities dedicated to a constant search for better water treatment chemicals and methods of treatment . . . analytical service and expert technical advice for every customer . . . and a full line of products backed by the Calgon name . . . all these are at your service. Call on Calgon for help on any water problem.

Ask your refrigeration wholesaler about these quality Calgon products—Calgon Scale Remover, Micromet Plates, Calgon Algaecide and Biocide RP, Banox,® Ice Machine Cleaners and Treatment, Gas Leak Detector. Each one is a leader in its field.

CALGON COMPANY
HAGAN CENTER, PITTSBURGH 30, PA.

DIVISION OF HAGAN
CHEMICALS & CONTROLS, INC.

MIGHTY MITE

Makes Motor
DRIVEN APPLIANCES SAFE!

MIGHTY MITE MOTOR PROTECTORS

MECHANICAL INDUSTRIES PRODUCTION CO.
223 Ash Street Akron, Ohio

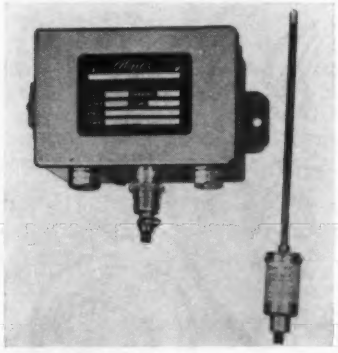
Room Unit Timer Programs Full Week

● An automatic timer that programs a full week's operation for a room air conditioner and reduces operating costs has been introduced by Admiral Sales Corp., Dept. AH&RN, 3800 W. Cortland St., Chicago 47.

The desired "on" and "off" times are set on the lower dial and the desired days of operation are chosen on the upper dial.

"This timer is particularly useful for persons who are out of their home or apartment all day and want to return to a comfortably cool abode without having the air conditioner run continuously during their absence," the company said. "Small places of business such as offices and beauty parlors can use this device to keep the air conditioner inoperative over a weekend and then turn it on at 7 a.m. Monday morning to make the office comfortable again by the time the shop's employes report for work."

The Admiral timers are available in 115 and 230-volt models and carry a suggested list price of $20.



Air Velocity Transducer Offered

● A new air velocity transducer system particularly designed for accurate measurement of low velocity air flow has been introduced by the Alnor Instrument Co., Div. of Illinois Testing Laboratories, Inc., Dept. AH&RN, 420 N. LaSalle St., Chicago 10.

In addition to the power supply, the new Alnor design combines a precise air flow sensing element with a read-out system that retains sensing element accuracy, the company said.

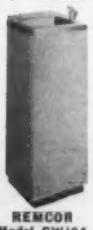
The sensing element, or transducer, is available in models for deflection-type indicator read-outs or potentiometric read-outs, and may be used in air temperatures from 20 to 250F.

Read-out options include indicators, records, signal alarms, and controllers.

WATER COOLER
10 GALLON PRESSURE TYPE

*$139.50
*To Dealers Only

Attractive • Sturdy • Economical • Stainless Steel Drain Top • Nickel Finished Copper Cooling Tank • ½ h.p. Tecumseh Hermetic Unit • Pre-Cooler • 5-Year Warranty on Refrigeration Cycle • Conforms to Government Specifications •

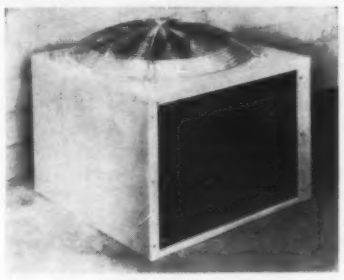


Remcor Products Co.
121 East Grand Avenue, Chicago 11, Illinois
manufacturers of water coolers since 1940

REMCOR
Model CW10A

Also 5 gallon Bottle Water Cooler—*$89.50

Compact Condensing Unit Introduced



● Introduction of a compact air-cooled condensing unit (model 1202-03) especially designed for small and medium-sized homes and for use in multi-roomed apartments has been announced by Airtemp Div., Chrysler Corp., Dept. AH&RN, Dayton 1.

"The 1202-03 gives our dealers an even greater flexibility for home and apartments and Chrysler now has three different types of air conditioning equipment for jobs requiring 22,000 to 25,000 Btuh," it was stated. Chrysler has a H-25 room air conditioner which delivers 23,000 Btuh; an all-in-one package unit, model 1103-07, which has a capacity of 25,000 Btuh; and now the 1202-03, which is designed at 22,000 Btuh for split-system installation.

Some of the features of the new model were listed as: "Operation capabilities at outside temperatures of 120°, and at reduced voltage up to 10%; a venturi top for greater air movement; an evaporator fan relay, which allows continuous operation of the indoor fan for circulation or fan operation only when the air conditioning compressor is running; a sub-cooling circuit, which permits easier installation since refrigeration lines no longer require soldering; a factory wired control panel, which eliminates all wiring on the job except running a power line from the house, or apartment to the control panel."

The condenser is 25 5/16 in. high, and 29 in. wide and deep. It weighs 220 lbs.

New Extension Cords For Conditioners Bowed

● The addition of a new line of air conditioner extension cord sets has been announced by the Carol Cable Div., Crescent Co., Inc., Dept. AH&RN, Pawtucket, R. I.

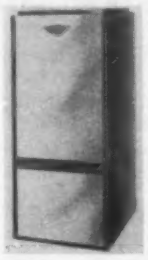
The cord sets, manufactured in gray parallel vinyl plastic construction, are available in five different lengths: 3 ft, 6 ft, 9 ft, 12 ft. and 15 ft in both 110 and 220-volt applications. A new "see-thru" vinyl plastic bag and header design "provide quick identification . . . ease in handling—and simplified inventory control."

Want More Details?

ADDITIONAL details on products that are described on these pages may be obtained by writing the manufacturer at the address given in each What's New story.

Tell him: "AH&RN sent me!"

Add 3 New Units to 'Heatwave' Line



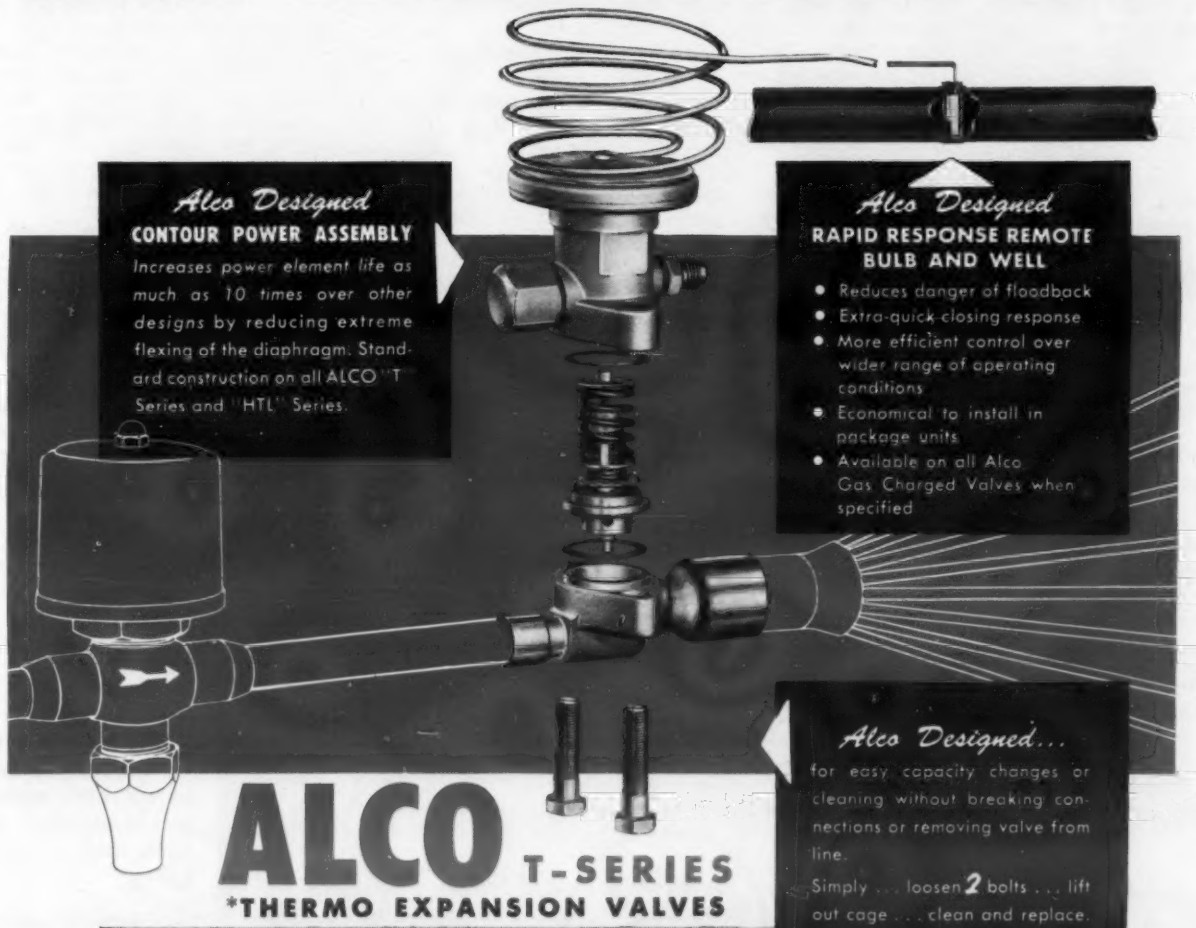
● Three new items in the 1961 "Heatwave" line have been announced by Southwest Mfg. Co., Dept. AH&RN, 10 N. Elliott, Aurora, Mo.

The newest addition to the line includes three models of oil-fired, forced-air furnaces: high-boy, horizontal, and counter-flow. Also new are Heatwave's electric furnaces of the forced-air type. These units incorporate an evaporator cooling coil for initial installation or the coil may be added on later. The entire unit offers complete electric heating and air conditioning.

Heat pumps in sizes ranging from 2 through 5 tons have been introduced in both remote and package types.

Engineered to

RETAIN YOUR PRODUCT LEADERSHIP



Alco Designed
CONTOUR POWER ASSEMBLY
Increases power element life as much as 10 times over other designs by reducing extreme flexing of the diaphragm. Standard construction on all ALCO "T" Series and "HTL" Series.

Alco Designed
RAPID RESPONSE REMOTE BULB AND WELL
- Reduces danger of floodback
- Extra-quick-closing response
- More efficient control over wider range of operating conditions
- Economical to install in package units
- Available on all Alco Gas Charged Valves when specified

Alco Designed...
for easy capacity changes or cleaning without breaking connections or removing valve from line.
Simply . . . loosen 2 bolts . . . lift out cage . . . clean and replace.

ALCO T-SERIES
***THERMO EXPANSION VALVES**

• Refrigerants: FREON-12 from ½ ton to 50 tons, FREON-22 from 1 ton to 80 tons, CARRENE-7 from ¾ ton to 60 tons, PROPANE from 1 ton to 88 tons • 2 BODY DESIGNS meet every requirement—STRAIGHT THRU CONNECTIONS or RIGHT ANGLE CONNECTIONS • WIDE VARIETY OF CONNECTIONS (Outlets to match distributor requirements • EXTERNAL or INTERNAL EQUALIZER • EXTERNAL or INTERNAL SUPERHEAT ADJUSTMENT • TIGHT SEATING . . . STAINLESS STEEL STEM AND SEAT • CORROSION-RESISTANT MATERIALS • MOUNT IN ANY POSITION • NO SPECIAL WRENCHES or GUIDES REQUIRED FOR CLEANING AND SERVICING

Call your ALCO WHOLESALER—Write for Bulletin 171-56

• *BUY SECURITY*
• *BUY QUALITY*
• *BUY ALCO*

ALCO VALVE CO.
853 KINGSLAND AVE. • ST. LOUIS 5, MO.

8218

The one complete line of refrigerant controls: Thermostatic Expansion Valves • Refrigerant Distributors Solenoid Valves Suction Line Regulators • Flooded Evaporator Controls and Reversing Valves

Service, Installation Depts. Separated

Commercial Distributor Discusses 5 Steps He Took To Strengthen Firm's Position (2)

NEW ORLEANS—Five steps one commercial refrigeration equipment distributor has taken within the past year to strengthen his position in a changing market were outlined by Ray Winther, president of the Ray Winther Co., South San Francisco, Calif.

Winther discussed these changes in detail at the 14th annual convention of the National Commercial Refrigerator Sales Association here.

The five steps he took were:

1. Establish a new air conditioning and industrial department.
2. Clean house in the sales department.
3. Streamline the installation and service department.
4. Set up a parts department control.
5. Work out a realistic financing program.

The first two points were discussed in Part I, which appeared in the March 27 issue of the NEWS.

"To keep in step with our changing times, we have separated our installation and service departments, with a manager of each, who has well defined responsibilities. We are fortunate in having two men who have progressed from working with tools to the management of their respective departments.

"The result is a smooth operation, and complete cooperation of the two departments. For many years, and volume, unfortunately, has an important bearing here, we had one man in charge of all mechanical operations, which meant that whosoever yelled the loudest, received first attention.

"Over the years, we have built up a large number of monthly service accounts for whom we perform preventive service. These accounts are the backbone of our service department.

"Because of this fixed monthly volume, we can maintain a proper crew of men, and at the same time, provide excellent service for our users as well as for many, many users of competitive equipment, with an over-all cost so low it is unbelievable.

Couldn't Conscientiously Sell Service Contracts

"At one time we considered going into the complete contract service business, but the rate necessary to cover, as charged by those who are already in that phase of the business, compared so unfavorably with our actual experience, that we could not conscientiously sell it.

"In checking over-all costs on preventive service, we found that jobs installed by us within the last five or six years are now being serviced by us for an over-all cost of $2 to $2.25 per horsepower per month.

"Specifically, one market which we have serviced for over 32 months for $54.25 per month, or $1.08 per horsepower per month, would on all out guaranteed service basis, have cost $173 or $3.40 per horsepower per month.

"On a local chain of 18 stores, some of which are well over 10 years old, over a three year period, we have on 664 hp done a job for $1.92 per horsepower per month.

"On another chain of 11 stores, some of which are small, with only 7 or 8 hp per store—with a total of 316 hp, the cost over three years has been $2.46 per horsepower per month. This varies from the small stores of 7 or 8 hp, at $3.92 per horsepower per month to $2.27 per month in a store with 30 hp, which was installed in 1952.

"These costs are from actual records. They include our regular preventive service charge plus the in-between emergency service.

"We run these periodic costs and present them to the customer for his inspection.

"On these figures, the customer is getting good service at a fair price, and our service department is the most profitable of our whole business—a gross of 25% plus.

"Here we stir up a point that is objectionable to many service organizations. Records must be kept. The customer, as a rule, does not know one compressor system from another. He must rely on the service organization doing his work.

"We keep detailed records, and they prove valuable in performing good service. We still believe in the five-year warranty. While it is too much bother for some people, it is of extreme value to the customer, and we feel he should have this added coverage.

Parts Department Control Set Up

"The fourth point of improvement is strictly one of internal control for our own service and mechanical department. In our business there are no cheap parts — expansion valves cost about $13. The average control about $10. A foot of 5/8-in. tubing about 23 cents. These items run into fabulous figures when multiplied by the quantities used.

"In the past, I have seen freelance servicemen set up shop on parts that were lost, strayed, or acquired from previous jobs.

"Under our new plan, each service truck has a fixed inventory which can be checked against sales from that truck. Each installation job has a bill of materials that go out and the returned items are checked to see just what actually went into each installation.

$375 Worth of Refrigerant Recovered From 'Empty' Cylinders

"One of the most rewarding operations in the stock room is the recovery of refrigerant gas from *empty* cylinders, before they go back to the manufacturer. Here we have rigged a simple used compressor to evacuate the empty cylinders. In the past five months, we have recovered 211 lbs of Refrigerant-22 and 377 lbs of Refrigerant-12 at a value of about $375. Is this worth doing?

"The savings from proper replacement of in-warranty parts; the recovery of gas; and from a proper level of stock is tremendous. The added information we get on the actual cost of service and installation parts, makes this innovation extremely valuable to us.

"It is surprising how many operators can profit from this type of control. Just look around your own shop and see the defective parts pile up—if yours is a big one you need a stock man at least part time.

Has Made Financial Institutions Aware Of Need for Long Terms

"The fifth point of progress is in the field of financing, and while this is a difficult subject to discuss in an open meeting, because it would reveal confidential arrangements made between ourselves and our customers, I will say that we have been able to make the financial institutions conscious of the need for longer terms.

"Five-year terms, which used to be the exception, have now become an accepted fact on the larger jobs. The contract interest rate has varied all over the lot, but here again, a more realistic view has been taken.

"Leasing, too, has proven to be a valuable means of conserving cash for a distributor under certain circumstances. But here again, it is a tax problem that must be handled carefully and legally, and must be planned over a five-year or longer period in order to work."

(The End)

Brown Announces New Production Schedule

MATTITUCK, L. I., N. Y.—K. G. Brown Mfg. Co. here has announced the completion of tooling for production on its new "Brownie" ice merchandiser, manufactured in two sizes—a 38 cu ft and a 54-cu ft model. They are being delivered off the lines at the rate of five per day, the company said.

These 2 Krack 15-ton Remote Type Air Cooled Condensers at the Safeway Supermarket in Oklahoma City, condense Freon-12 refrigerant for 15 compressors serving food sales cases, display cases, and walk-in service rooms.
KRACK
SPECIFIED
SAFEWAY

"We chose Krack Air Cooled Condensers for Safeway because of full rated-capacity performance, low cost, and better delivery."

—L. C. Nettleship, Jones-Newby Supply Co., Oklahoma City

Count on KRACK to Deliver RATED CAPACITIES

YOU ENJOY THESE ADVANTAGES:

Equipment matches the job . . . You can be *sure* about actual performance. You don't have to "play it safe" by specifying more costly, "oversize" equipment for a job when it is not needed.

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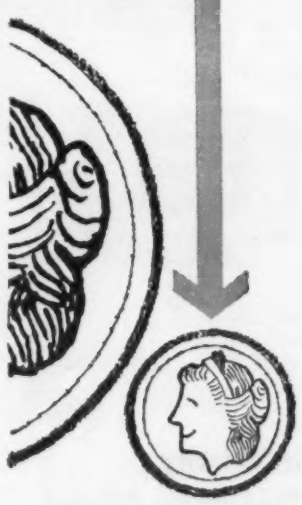

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ASK YOUR WHOLESALER

TECH CENTER

by
FRANK J. VERSAGI

Servicemen Talk Back (2)

The serviceman is almost always on the receiving end.

Business papers, consumer periodicals, manufacturers, housewives, wholesalers all have taken their pokes at him, both justly and not. The serviceman is told he is discourteous, untrained; he doesn't read manufacturers' literature.

What does the serviceman say to all this? How does he feel about his relationship with his customers, his sources of supply, the manufacturers?

Over a period of months, the NEWS has asked servicemen the country over for their thoughts. Tape-recorded random comments and discussions among servicemen themselves are included in this report.

Speaking of the same make air conditioner, in order to change the system you've got to drop that package, which weighs from 5 to 8 tons sometimes, to the floor. You've got to strip the thing apart, take off all the panels to take the compressor and evaporator out or the condenser. All that's left is the frame, the power pack, and the blower. That's all that's left.

Then you set the new unit in; you still don't know if it's operating or not. Then you put it up, then you find out if it's operating. What is some of the thinking that goes into the design of some of these things.

1) Why don't they allow component change? All right, they say they can't.

2) Then why don't they design the packages so you can take the system out the side or something, you can't even get to it without dropping the whole damn thing. We had one occasion where it took three men eight hours just to change a system. The factory labor charge on the change didn't cover one-tenth of my costs.

A few years back, we were called out on what was obviously a refrigerant leak. And the location of the leak was obvious. We tried to get authorization to repair the leak, evacuate, and recharge the system, but nothing doing. We had to change the whole thing. It was in a basement, and it was located in such a terrible place that we would have had to spend too much unnecessary time getting it out and in. So we went ahead and voided the warranty by welding it up.

Don't you think that a lot of manufacturers, from their past experience, have felt that they were going to have so little trouble, statistically speaking, that it didn't justify making the parts easily accessible. And because of economic conditions, to produce the unit at lowest possible cost, they have to do these things. For example, manufacturers used to put two valves on compressors, but they found that there were so few instances when the valves were needed, that it was more economical to eliminate them.

Let's grant them that. But then they should make realistic allowances for the problems their engineering leaves us with.

I doubt if that will ever happen. The service manager of a manufacturer, even if he's on our side, has no authority over the design and production. The accounting department says this is the way it has to be, so there it is.

I remember a case where the manufacturer's service manager complained so much about this that they made him production manager. He lasted 38 days.

A big problem for the serviceman is a problem that the manufacturer can't see because it's so small to them.

Yeah, but the end user, the customer has to pay for this. And the manufacturer has to sell to the customer.

If the customer asks why we have to change the whole system when only the compressor is bad, all the explanations in the world can't make him see why.

I'd like to comment on this quality thing. A manufacturer produces a laboratory piece, or he tests some equipment out in the laboratory. He markets it without much if any field testing. Then when we go out and in one or two seasons, change 50 or 60 compressors on that model, we get sour on that brand, regardless of its price, so we refuse to recommend it and we may even go around knocking the product, even though we made quite a little money from servicing it.

If we have to service this kind of monster in warranty, we'll service only a few before we begin refusing to make in-warranty calls.

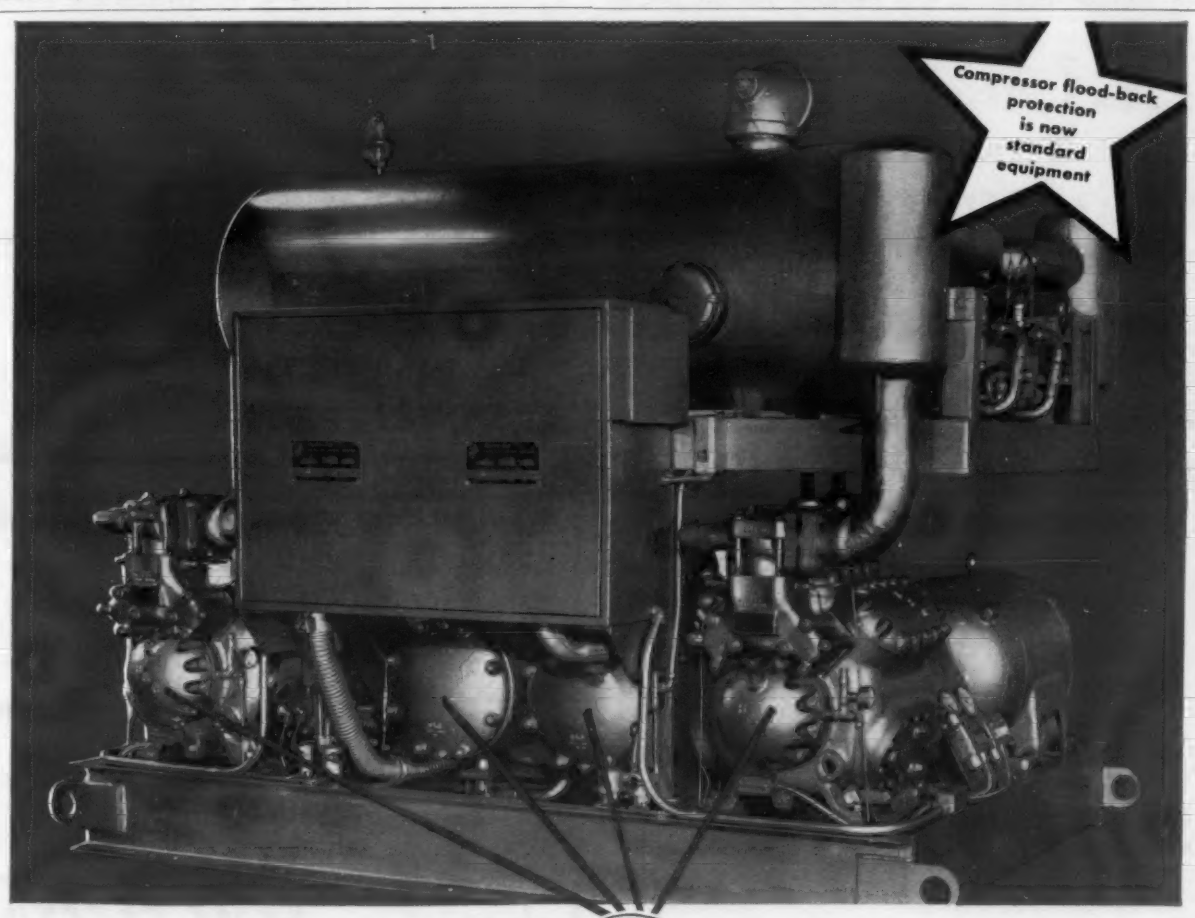
That's right. Then the manufacturer tries to establish his own service outfits, finds that even those cannot be operated at a profit, finally pulls them out then tries to find new outlets to accept a very badly accepted product.

All this simply because he has not gone to enough pains to see that the service contractor is taken care of.

(To Be Continued)

NEWS readers are invited to write to the editor giving their opinions on any subject of interest to the industry.

The throttling value of a capillary tube can be conveniently measured by measuring the amount of nitrogen which flows through it under a gauge pressure of 10 atmospheres, according to an article, in German, in the February, 1961 issue of *Kaeltetechnik*. It is also possible with this technique to measure the effect of such factors as tube roughness and deviations in dimensions. Use of a nomogram makes it possible to relate the findings to compressor capacity for fixed evaporator and condenser temperatures, the article states. Address of the German refrigeration journal is Kaeltetechnik, Verlag C.F. Muller, Karlsruhe, Lammstrasse 2, Germany.



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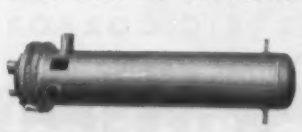
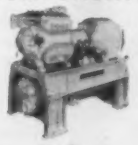

B&G Evaporator

B&G Centrifugal Pump

B&G Condenser


B&G Condensing Unit

Electrically Operated Solenoid Valves (1)

(Selection and Application)

By Clifford Bastle, Project Engineer,
Refrigeration Section, Controls Co. of America

BASIC PRINCIPLES OF OPERATION

Solenoid valve operation is based on the conversion of electrical energy into work.

The three basic types of plunger operation employed in solenoid valves used on refrigeration systems are impact, direct-pull, and air-gap pull. The difference is in the method used in moving the plunger into the magnetic field thereby producing the force that is necessary to open the valve orifice.

The impact type plunger assembly is illustrated in Fig. 1. When the solenoid coil is energized, the plunger movement due to electromotive force travels independently until it engages the valve stem. At this time the kinetic energy of the plunger is transferred to the stem producing the force required for valve opening.

Since kinetic energy is directly proportional to the square of the velocity, efficiency is achieved by having maximum velocity at the time of impact. Flux sleeves (see Fig. 1), properly employed with respect to the physical dimensions of the coil assembly, are generally used to attain this objective. For a given amount of work, applying this technique enables the required power input and consequently the physical size of the valve to be substantially less.

This type of valve must be installed and operated in the vertical position as the closing, upon de-energization, is dependent upon the weight of the plunger.

A direct-pull solenoid valve is illustrated in Fig. 2. Upon energization, the electromotive force on the plunger opens the orifice immediately without the benefit of impact. This construction is simpler and can be used when the work required is relatively small.

This type must also be installed in the vertical position unless a closing spring is used.

An air-gap pull solenoid is illustrated in Fig. 3. This type of operation is dependent on the electromagnetic force due to attraction between two magnetic pole faces, upon energization.

The amount of work available is this initial force times the stroke (length of air-gap). Therefore, in this type of design, the stroke (for full capacity) is kept at a minimum so that the maximum force is realized.

(Continued on next page)

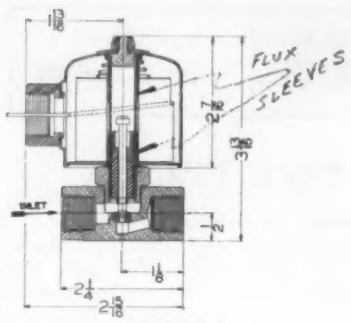


FIGURE 1

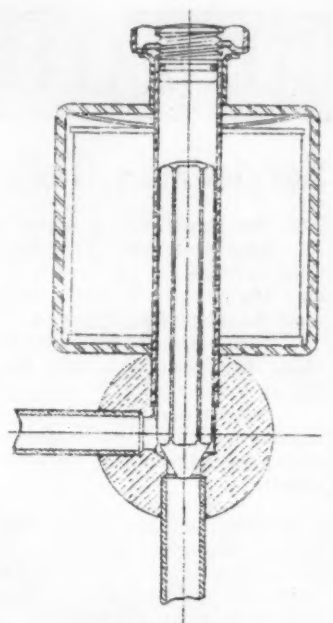


FIGURE 2

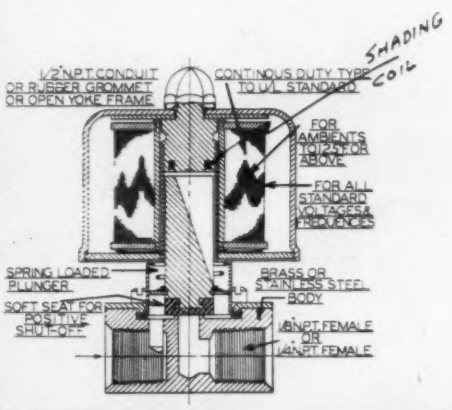

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FIGURE 3

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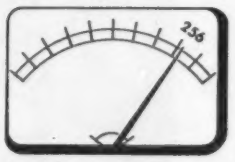
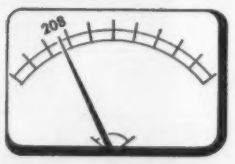


or

Below Normal



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Solenoids--

(Continued from preceding page)

Since these two pole faces are in direct contact, it is necessary to provide a "kick-off" spring to overcome the residual magnetism when the electrical circuit is broken.

This will enable the valve to be installed in any mounting position because the closing is no longer dependent on gravity. This, of course, is desirable.

Another provision necessary, if used on alternating current, is a means to retain work when the input current reverses and has an instantaneous zero valve.

During this time interval of zero input, the plunger travels an infinitesimal distance away from the pole face and back again producing a "chattering" effect. This is commonly referred to as "a-c hum" and will occur 120 times a second when used on a 60 cps frequency electrical input.

To provide this relatively small amount of work and overcome this problem, a shading coil which usually consists of one turn of copper (very low resistance) is inserted in either of the two pole faces. A current is induced in this coil that is out of phase with the main current providing force at zero input, and consequently reduces the noise level.

This "a-c hum" is also present in impact and direct acting valves but is not as critical because of their magnetic construction.

When the required flow capacity is very high, the above methods are not used directly. The forces necessary dictate a power input that increases the physical size of the coil assembly and consequently the cost to impracticability. The art of pilot-operation is then used and is illustrated in Fig. 4.

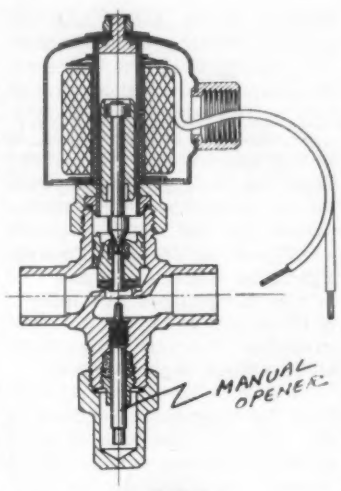

FIGURE 4

Opening of the pilot orifice reduces the pressure above the piston creating a pressure differential across it and thereby opens the main orifice. Closing the pilot orifice and allowing the pressure to build up and equalize above the piston through the bleed passage closes the main orifice. A nominal pressure drop of approximately 2 psig is required to operate this type.

Proper selection of bleed, pilot, and main orifice areas is maintained for smooth valve operation. Diaphragm-operated valves perform on the same principle. Impact, direct, or air-gap pull methods may be used to open the pilot orifice.

These valves usually provide a manual opener so that in case of valve failure, the main orifice may be opened manually.

(To Be Continued)

Gas Industry Campaign for 1961--

(Continued from Page 1, Col. 4)

Executives attending these meetings were told that the gas air conditioning market is practically untapped. They heard speakers predict that in the next 12 to 18 months, new units would be manufactured which will quadruple to 80% the market for gas air conditioning.

It was stressed that an aggressive air conditioning sales program is of primary importance to every utility company and that an adequate sales force—a minimum of one salesman for every 40 units of sales—is essential.

Cited as examples at the meetings were gas companies which lead the field in air conditioning sales. In each case, these companies emphasized top-calibre sales effort, company-wide recognition of the importance of the air conditioning department, service responsibility, hard-sell promotion, and aggressive top management support.

Gas utilities must maintain high installation standards and service responsibility, the executives were told. Special summer rates and flexible, long-term financing or leasing programs were also recommended.

Buell G. Duncan, president of Piedmont Natural Gas Co., Inc., speaking at the Birmingham meeting, said: "I consider the 25,000 goal as minimum. Our company certainly plans to equal or exceed the quota for our system."

"Gas air conditioning is the best investment a gas company can make in its future growth," Richard A. Puryear, president of Alabama Gas Corp., told the Birmingham meeting.

Speaking in Chicago, Marvin Chandler, president of Northern Illinois Gas Co., said greater emphasis on air conditioning sales would improve profits substantially in the July-September quarter.

W. G. Wepfer, sales manager of Arkla Air Conditioning Corp., who spoke at three of the meetings, told delegates that his company plans to introduce several new items soon including three models of a 4.3-ton Sun Valley, a 6.4-ton "All Year" model, and a 5-ton "remote" unit.

Wepfer also previewed the Arkla "Road Show," a series of color slides, with accompanying scripts, which will carry the gas air conditioning sales effort to the "grass root" level during 1961. He announced that Arkla will present awards to companies and individuals for outstanding sales performance.

David W. Hoppock, vice president in charge of sales for Bryant Mfg. Co., which is emphasizing small tonnage units, discussed his company's plans.

Recession?

(Continued from Page 1, Col. 4)

nasty, and very few others even mentioned the recession."

Working from the city directory, Williams made a list of the homeowners' names in a small area of Asheville comprised of average homes.

In the course of a few days the first week in March, he knocked on 130 doors.

As a result of this cold canvassing, he was invited to give 11 bids on heating and storm windows, and out of these 11, he actually made four sales.

"I was surprised," Williams confesses. "People talk pretty conservatively here in Asheville, but actually I found most of them in very good financial position."

In most instances it was not a question of consumers not having money in the bank, but simply a matter of what they were going to spend it for, Williams soon realized.

As for the firm's salesmen, Williams blames himself for not having supervised their activities more closely.

"Now I'm assigning definite territories for cold canvassing and requiring that they turn in call reports," he said.

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Arizona Bid Depository Plan--

(Continued from Page 1)

service participants in line, and the hostility of many general contractors to whom the bids were submitted.

J. P. Donohue of Climate Control, Inc., who was the last chairman of the Arizona Bonded Bid Opening Service, said that there have been some informal meetings held among air conditioning contractors to discuss the possibility of attempting to put together a bid depository service for air conditioning work only. However, no concrete plans or proposals have been set forth along this line at the present.

"In the period since Arizona Bonded Bid Opening Service closed off operations, a number of contractors have complained about the effect of unregulated bidding procedures," Donohue said. "On the other hand, I'm not at all sure that a majority of contractors want a tight bid depository setup.

"Many of the established air conditioning and mechanical contractors had solid established relationships with general contractors and worked on a basis of negotiated bids before the bid depository plan went into effect. In many instances they felt that the bid depository program deprived them of their rightful share of the business.

"Also, since the plan was not completely binding, it gave the general contractors a chance to exert some pressure to keep some of their favorite subcontractors from going in with the bid plan, and there was nothing in the setup to stop this.

Business Slump Aided Plan's Downfall

"When business hit a low period last year, the pressure to get contracts just about demolished all the effectiveness of the plan."

Donohue said that bid depository plans were still effective among other building trade groups in the Phoenix area, but wherever it had been effective, there had been a strong organization of contractors to operate and "police" a bid depository plan.

When the Bonded Bid Opening Service was functioning successfully, it was felt that one of its strengths was its "freedom of choice" feature, whereby subcontractors were not required to put all their jobs through the depository and general contractors did not have to accept bids on every job.

However, some contractors now wonder whether this was a weakness which led to the eventual breakdown of the plan.

How Arizona Bid Depository Worked

The following explains how the Arizona bid depository operated:

Any properly licensed subcontractor in the field of plumbing, heating, air conditioning, and sheet metal work could participate in the depository upon purchase of one share of stock in the corporation for $1 and by agreeing to strict adherence to the rules.

There was no limit on the size of the job covered. Any job was eligible where two or more contractors were bidding on it.

Subcontractors wishing to bid had to notify the registrar of an intention to bid at least 12 working hours before the depository closing time. Depository closing time was six working hours before the opening of bids by the awarding authority.

A separate bid was filed in locked boxes at the Bid Service office for each general contractor to whom the subcontractor desires to bid. Bid proposals were made on special forms designed for the purpose and filed in special envelopes. A duplicate of these bids were filed in yellow envelopes for the depository along with a deposit check.

Bids, firm for 30 days, were filed for particular sections of the contract. Portions of work of other sections were shown as separate additions to the complete section. Portions not included in the section bid were shown as deductions from that section.

Every Bid Was Easily Compared

Thus, every bid covered the same thing, and was easily comparable.

Bids could be deposited at any time when the Bid Service office was not open by dropping them in a mail slot. They slid into a heavy gauge sheet metal locked box attached to the door.

A $5 penalty was assessed for failing to get bids in at least 12 working hours before depository closing. No bids were accepted after the depository was closed. After the depository was closed, bids were delivered to the general contractor by bonded messenger.

The general contractor signed a receipt for his bids. In doing so, he agreed in writing to use one of the bids forwarded to him.

The registrar of the bid service opened the duplicate copy of the bids at same time as they were sent to the general contractor, doing so in the presence of any interested bidders. Later a tabulation of bids was sent to each bidder. Unsuccessful bidders were notified when their bids were not accepted.

NEWS readers are invited to write to the editor giving their opinions on any subject of interest to the industry.

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MANUFACTURING SUPERVISOR, 11 years' background in air conditioning, fabrication, tooling, and sales. Heavy background in coil fabrication. Seeks staff position with company, preferably with coil manufacturer. Write BOX A6748, Air Conditioning, Heating & Refrigeration News.

YOUNG MAN desires position to learn all phases of refrigeration trade. Have graduated from two-year college and have taken course in refrigeration and air conditioning through trade school. Have experience with large ammonia and smaller Freon systems. Will relocate. BOX A6749, Air Conditioning, Heating & Refrigeration News.

INSTALLATION AND service mechanic, 13 years' experience on all phases of air conditioning and refrigeration systems and gas fired furnaces. Package units, remote units, chilled water systems, residential and commercial. Wishes to relocate in Miami or Southern Florida. Member of R.S.E.S. BOX A6755, Air Conditioning, Heating & Refrigeration News.

POSITIONS AVAILABLE

AIR CONDITIONING installation and serviceman. At least 5 years' experience (Carrier experience preferred). Heating and controls experience desirable. Steady employment at union scale. Excellent opportunity for right man. Send complete resume to C. L. MAHONEY CO., 438 Forest St., Kalamazoo, Michigan.

TWO MECHANICS, commercial air conditioning and refrigeration service and installations, experienced, sober. Good salary. Guaranteed year round employment. Hospitalization benefits. Give references, present salary, and experience. Our firm in business over 30 years. AARON TORCH & SONS, INC., 452 First Street, Macon, Georgia, SHerwood 6-5666.

SALES ENGINEER—Air conditioning manufacturer has opening for full line sales representative in metropolitan Los Angeles market. Proven sales experience in heating, packaged cooling, and field assembled fields mandatory. Attractive base salary, bonus, and expenses with real future opportunity. Send brief resume to WESTINGHOUSE ELECTRIC CORPORATION, Air Conditioning Division, 1515 So. Garfield Avenue, Los Angeles 22, California.

FIELD REPRESENTATIVE: Applicant must be a mechanical engineer with practical experience. Also, the ability to handle groups involved in trade association work. Job available immediately. Send resume and photo to: BOX A6746, Air Conditioning, Heating & Refrigeration News.

EXPERIENCED SALES and servicemen positions available in major cities throughout eastern half of U. S. If progress on your present job is slow, this is an opportunity to advance. Must have at least five years' experience servicing air conditioning and warm air equipment and contacting building maintenance management. Ground floor opportunity to become service manager with national manufacturer now expanding operations. Unlimited opportunity. Salary and generous profit sharing plan. Send resume and snapshot. BOX A6750, Air Conditioning, Heating & Refrigeration News.

EXPERIENCED FACTORY representative wanted for St. Louis area by foremost manufacturer of refrigerated display and storage equipment. Liberal draw against commission. Give resume. Reply confidential. BOX A6751, Air Conditioning, Heating & Refrigeration News.

EXPERIENCED PROJECT engineer—for position with Midwest division of national manufacturer of air conditioning, refrigeration, and heating products and equipment. Heating design experience coupled with some experience in air conditioning or commercial refrigeration required. Assignment will be in design and project coordination of heating and commercial refrigeration products. Submit resume and salary requirements to BOX A6753, Air Conditioning, Heating & Refrigeration News.

EXPERIENCED REFRIGERATION engineer required by leading manufacturer of commercial food market refrigeration equipment. Age 25 to 35. Must be willing to travel and relocate possibly in southeastern U. S. Only experienced need apply to BOX A6754, Air Conditioning, Heating & Refrigeration News.

EQUIPMENT FOR SALE

FAMOUS MAKE national brand running capacitors: 20 mfd x 370V, $2.75 ea. rect; 10 mfd x 350V $1.25 ea. 5 mfd x 330V .80 ea. Reply to CON-DEA SUPPLY CORP., 379 East 169th Street, Bronx 56, New York.

BRAND NEW icemaker pump motor and impeller repair kits for Scotsman Carrier $18.00 at Kesco wholesalers coast to coast. Bronze replacement icemaker pumps for York Carrier $29.95. Hose connection adaptors for York Carrier $1.00. Complete line condensate pumps from 10' to 50' head, 115-208-230 volts. Catalog. KESCO, Jamaica 13, N. Y.

ATTENTION REFRIGERATION Servicemen. Send for catalog listing values in refrigeration and air conditioning parts, relays, capacitors, compressors. Savings up to 50%. WALTER W. STARR, 2833 Lincoln Ave., Chicago 13, Illinois.

UNITED CONTROL and Relay Repair Co. Domestic controls, relays, defrost timers, new controls and relays in stock. Prompt mail order service. 151 E. 126 Street, New York 35, N. Y.

BUSINESS OPPORTUNITIES

WANTED — DISTRIBUTORS, dealers, agents, for our different circulating water treatment, Air-Con Emulsion Sand-Banum — The simple, safest method of keeping scale, rust and corrosion out of open type circulating systems. Removes scale and rust already present. Excellent discounts available. Write for information. Air-Con can add to your profits through repeat sales! AMERICAN SAND-BANUM COMPANY, INC., P. O. Box 4, Merrick, New York.

WANTED — GROUP of well financed sales executives; many years' experience, excellent connections with gas utilities, jobbing houses, larger trade members across Canada, desire Canadian distributorship for manufacturers of items which sell on repeat basis through these channels. Will buy and sell on own account. Please write HOWARD SIMPSON, 2000 Young Street, Toronto 7, Ont.

AIR CONDITIONING contracting company for sale. Uninterrupted $59,000 annual average earnings record past 15 years. Sale price of total operation including complete sheet metal shop, furniture, fixtures, trucks and inventory for only a fraction of one year's average earnings. Los Angeles area. BOX A6740, Air Conditioning, Heating & Refrigeration News.

MISCELLANEOUS

NOW! ORDER your copy of the popular 1961 (fourth) edition of "Air Conditioning the Home" — a book which is comprehensive and informative on all phases of year-round residential air conditioning. 52 pages 9 x 11½, fully illustrated, only $3. Send your order to: BUSINESS NEWS PUBLISHING CO., Dept. B, 450 W. Fort, Detroit 26, Mich.

AIRCRAFT AND mechanic available Midwestern states. Pay for mechanic time only. Service all types refrigeration and air conditioning equipment — will fly to service anywhere in United States. ILLINOIS REFRIGERATION SERVICE COMPANY, 5301 W. Chicago Ave., Chicago, Ill., AUstin 7-7080.

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This single compact kit costs only $43, yet contains every essential piece of equipment for your work. You get three interchangeable open-flame stems to provide the right air-acetylene flame for soldering, brazing, or heating. Fit the sensitive leak detector stem to the same torch handle, and you can pinpoint the tiniest halide gas leaks—as little as 100 parts in 1,000,000 parts of air. Compare that with soapy water!

In one sturdy carrying case, the kit also includes an adjustable gas pressure regulator, torch handle, and hose—everything for the installation, repair, and everyday maintenance of all types of refrigeration and air conditioning systems. See your local *Prest-O-Lite* dealer. Or write Linde Company, Division of Union Carbide Corporation, 270 Park Avenue, New York 17, N. Y.

LINDE COMPANY — UNION CARBIDE

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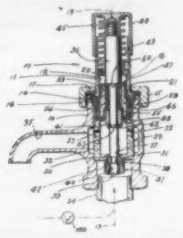
PATENTS

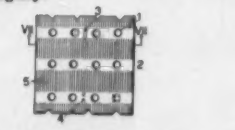
Week of Dec. 6 (Continued)

2,963,259. METERING VALVE. William T. Heyer, 411 N. Wilson, Pasadena, Calif., and Frank Kepka, 2995 N. Lake Ave., Altadena, Calif.



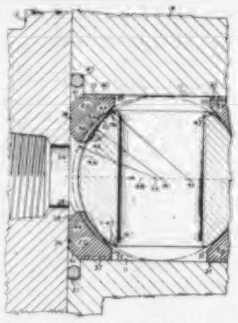
7. A metering valve comprising: a housing, an interior wall in the housing defining a passage, said housing having an inlet, an outlet, and a port between said inlet and outlet, a spindle having an axis, said spindle being axially movable in said passage and having a portion which projects through said port; a plug on said portion which is larger than said port and adapted to close the port in one axial position of the spindle, and to leave the port open in another position of the spindle, and an annular elongated single-chambered capsule in said passage attached to, extending between, and interconnecting the spindle and the interior wall. . . .

2,963,261. SEAL SEAT CONSTRUCTION. James W. P. Holl, 5014 N. Encinita Ave., Temple City, Calif.



1. A seal seat construction for valves, having alignable ports therein, and substantially parallel spaced surfaces adjacent said ports, a seal seat surrounding the ports and including an outer ring and an inner ring, the upper surface of the inner ring bearing against one of said parallel surfaces, and the bottom surface of the outer ring bearing against another of said parallel surfaces, an inwardly stepped shoulder on the outer ring, said inner ring bearing on the shoulder, packing means arranged between the inner and outer rings and positioned above said shoulder, a second packing means arranged between said inner and outer rings and positioned below said shoulder.

2,963,263. BALL VALVE SEAT RING. Robert E. Sanctuary, Shrewsbury, Mass., assignor to Worcester Valve Co., Inc., Worcester, Mass.

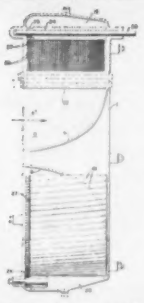


A valve comprising a hollow casing providing a peripheral wall and opposed annular seat ring supporting surfaces, annular seat rings shaped to fit against both said wall and said surfaces and provide a central fluid passage, an annular fluid controlling valve ball rotatably mounted between the rings which has opposed ring engaging noses merging with spherical zonal seat ring engaging surfaces, and means including a stem engaging the ball which serves to turn the ball between open and closed positions and provides for a limited downstream movement of the ball, each ring being a unitary annulus of distortable elastomeric substance having a peripheral face fitting against said wall, an end surface seating against a ring supporting surface of the casing. . . .

2,963,277. FINNED CONSTRUCTION FOR HEAT EXCHANGERS. Laszlo Heller and Laszlo Forgo, Budapest, Hungary, assignors to "Licencia" Talalmanyokat Ertekesito Vallalat, Budapest, Hungary.

A heat exchanger comprising a bank of tubes subdivided into groups for carrying a heat exchange medium, one group of said tubes serving for carrying the medium in one direction and another group of said tubes serving for carrying the medium in an opposite direction, a plurality of fins spaced apart longitudinally of the tubes. . . .

2,963,278. ROTATING HEAT EXCHANGER. Johannes Gassmann, Altbach, near Esslingen, and Horst Witt, Stuttgart, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart, Unterturkheim, Germany.



1. A rotating heat exchanger for transferring heat from a first fluid medium to a second fluid medium comprising rotary heat exchange means formed by a plurality of annularly-shaped rotatable disks provided with a central opening, means including said central opening and said disks for forming a first sector for the passage therethrough in a radial direction of one of said fluid media and for forming a second sector for the passage therethrough in a radial direction of the other of said fluid media to transfer heat to said other medium from said one medium by said disks, and spacing means located between said disks for simultaneously spacing said disks and continuously wiping off foreign particles deposited at said disks.

(To Be Continued)

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Research & Development Assn.--

(Continued from Page 1, Col. 2)

(1) be in a better position to cooperate with other national organizations, and (2) answer criticism by wholesalers in North Carolina.

The latter have given strong support to the organization but have felt recently that its growing activities in other states were of no value to them.

Heading the new slate of national officers is David Moser of Asheville, N. C., as president; Millar Brainard, Jr. of Sarasota as vice president for Florida; and Milford Weaver of Martinsville, vice president for Virginia.

Dr. E. A. Fails continues as executive secretary and D. S. Shepherd, Jr. as treasurer. Both hold the same positions in the newly-formed North Carolina state chapter, which is headed by Frank T. Daddario of Durham as president and John J. Williams of Asheville as vice president.

What Makes a Good Manager

Discussing "what makes a good manager," Fails emphasized that "there are no business failures, just people failures."

Eleven basic requirements of a good manager were outlined by Fails: He must know his costs, have personal qualities that will engender "followship," possess imagination and vision, he understands people, he must not substitute paternalism for good management, he must have training and experience, know the relationship of various costs of doing business, understand the factors that produce wealth, recognize his own limitations and hire men to stop-gap his weaknesses, understand the line-and-staff relationship and function, and have a burning desire to win in both big and little things.

Wholesaler's Responsibility

The wholesaler's responsibility to his dealers was outlined in a talk by Bruce Leister, vice president of Metal Service Co., Inc., Charlotte, N. C., who explained that the chief function of the wholesaler is to stock equipment and parts.

"The wholesaler must also help the dealer grow, but too many wholesalers just have stock," Leister asserted.

He also condemned the wholesaler who extends credit indiscriminately and who quotes different prices on the same product to different dealers.

"Should the wholesaler make take-offs for dealers? Yes, if he can afford it," Leister said. "But the wholesaler should make it clear that it's only his take-off and it should be the dealer's responsibility to keep up with changes made in the plans and inform the wholesaler of these changes," he added.

Time-tested principles of specialty selling, dressed up in the current language of "positive thinking," were reviewed by another speaker, H. H. Ziglar, Atlanta sales training counsellor, who reminded the group of the five basic steps towards making a sale:

1. Get the prospect's attention, 2. arouse his interest, 3. convince him with facts and benefits, 4. arouse his desire for the product or service, and 5. close the sale.

Management functions were hit upon again by Dr. Richard Levin of the University of North Carolina, who summed them up under three basic categories: planning, directing, and control.

"People can't answer the question of how they did financially without planning in advance what they can expect," Levin declared.

As for directing people, Levin commented that "most people in business do this too much" but not effectively. Better communication and written policy are needed, he believes.

Control, which Levin cited as the "biggest money-maker" of the three basic management functions, is simply the process of checking up on operations in time to prevent financial disaster, he explained.

The open forum on estimating, conducted by Fails, touched upon several aspects of the problem. Some of the points brought out included:

"Inventory shrinkage" of small items can be significant. This loss can be minimized by use of a detailed estimating form.

In estimating labor costs it's common practice to refer to previous similar jobs, but usually the dealer merely looks at the previous estimate rather than the actual cost because so few dealers know their actual costs on a job.

"We think half the contractors in North Carolina don't put anything in service reserves," said Fails. "That's why they go broke in the third, fourth, or fifth year. Paying for service out of current sales can hurt."

FTC Hearings--

(Continued from Page 1, Col. 1)

counts, rebates, and allowances.

He added that the record does not prove any trend of concentration in the industry in favor of the respondents, or any substantial injury, or reasonable probability of injury, to competition resulting from these dealer aids.

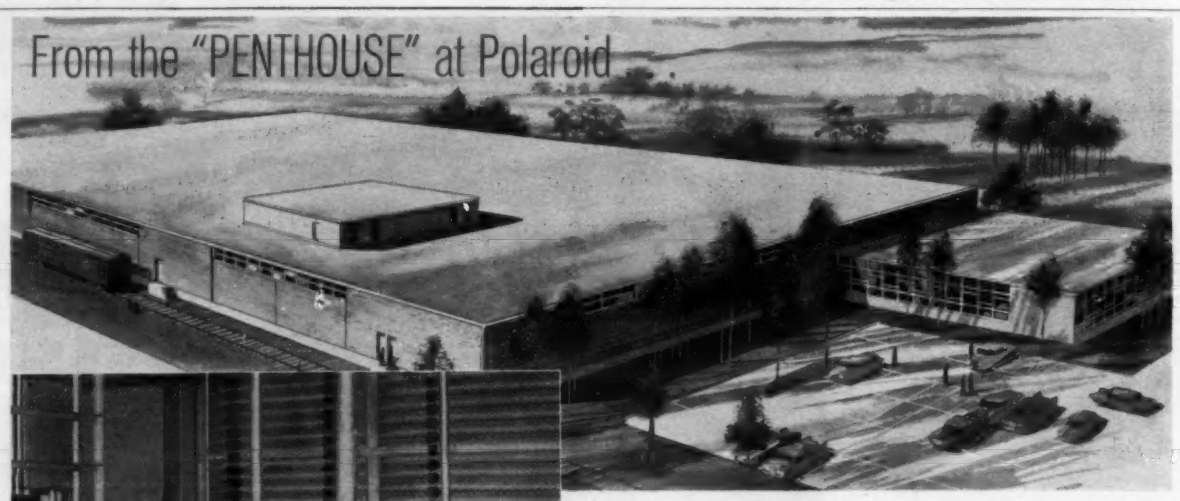
FTC counsel appealed from the initial decision and oral argument was heard before the commission the latter part of 1960.

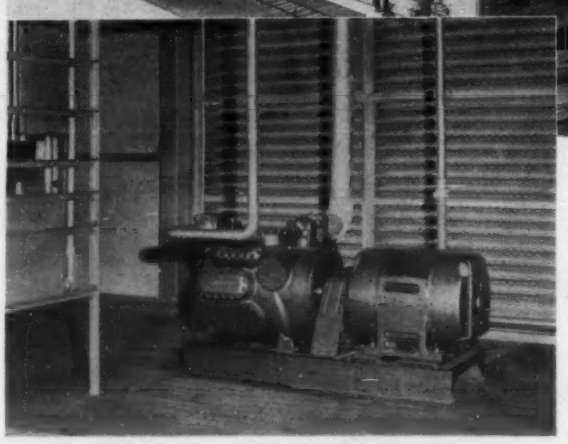
In its remand order, the commission said an informed disposition of the appeal requires an appraisal of all aspects of the competitive effects of the challenged practices. This involves, among other things, a consideration of the approximate amount of trade which has been or may be restrained or otherwise affected by these particular activities, it was pointed out.

Noting that "the records as presently constituted do not contain accurate and reliable statistics from which this information may be ascertained," the commission remanded the proceedings to the examiner.

He was instructed to receive "such further evidence as may be offered for the purpose of showing, for some reasonable period of time, the extent to which requirements contracts, 'trade agreements' or other exclusive dealing agreements have been used by the various respondents, their subsidiaries and affiliates in connection with, or ancillary to, the sale of ice cream and other frozen products, the identity and location of the customers with whom such arrangements have been negotiated, and the quantities and dollar volumes of the products which have been involved in the transactions."

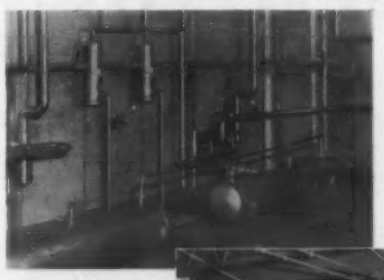
From the "PENTHOUSE" at Polaroid





100HP Direct Drive Brunner Multi-Drive Compressor

Storage of Polaroid Film in New Warehouse



Heat-X Mufflers, Receivers and Pressure Stabilizers

One of Two Dunham-Bush Air Handling Units Furnishing Heating and Cooling

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